

AIRFIX

magazine FOR PLASTIC MODELLERS

SEPTEMBER, 1963

MONTHLY

1/6



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Simple conversions with the Spitfire



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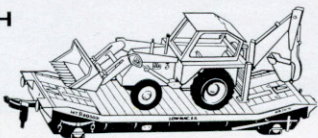
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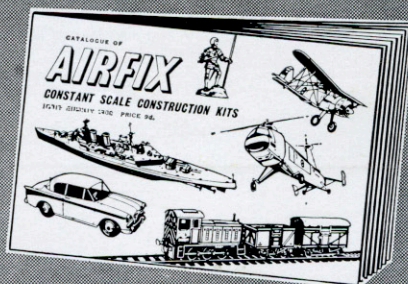
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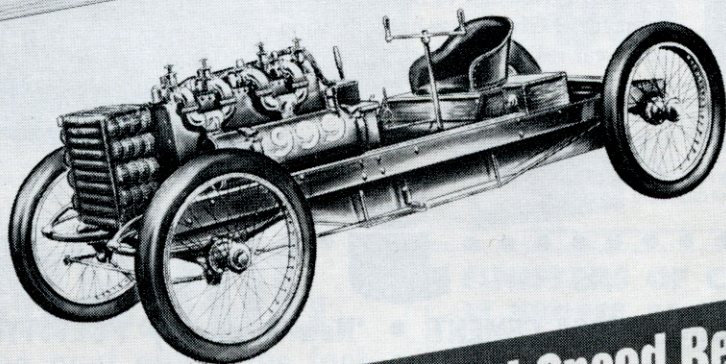
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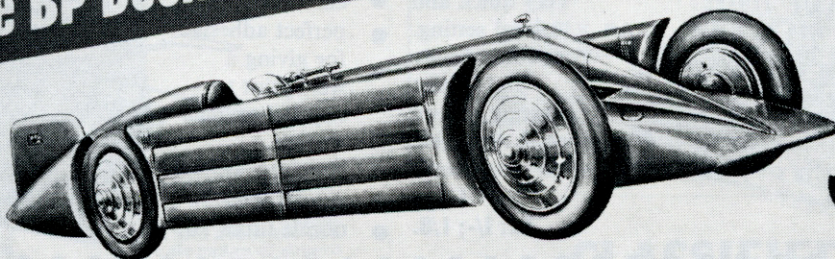
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Airfix Magazine

AIRFIX

magazine

FOR PLASTIC MODELLERS

Volume 5, Number 1

September, 1963

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COVER PICTURE

LMR Type 4 1Co-Col diesel-electric locomotive No D334 heads a London-bound train under the new Rugby flyover. This modern pre-stressed concrete structure, completed just a year ago, lifts Birmingham-to-London trains over the London-to-Crewe main line—one example of the many civil engineering works that are already speeding up British Railways' services.

(Illustration by courtesy of British Railways)

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NEWS FROM **AIRFIX**

The world's greatest value in construction kits

Lockheed F-104G and 'Devonshire'

THIS month, a 37-part kit (price 3s) of the Lockheed F-104G Starfighter joins the Airfix range of 1:72 scale aircraft. Released at the same time is a new 1:600 scale warship—the 80-part HMS *Devonshire*, selling for 4s 6d.

Colourfully boxed, the Starfighter kit can be assembled in several different ways. The port and starboard air brakes can be in open or closed positions. The undercarriage (which, like the tail unit, is excellently detailed) can be assembled either retracted or lowered. (If the model is to stand on its undercarriage, the nose cone should, of course, be weighted.) The wingtips can be equipped with either Sidewinder missiles or the alternative long-range fuel tanks also provided. A 22-part transfer sheet enables the completed model to be finished in either West German or RCAF CF-104 markings.

Also included in the kit is a display stand, and full

assembly instructions in the latest new Airfix style. This exciting kit of an exciting aircraft will find a sure place in all 1:72 scale collections, and looks like being another Airfix best-seller.

The 104G Starfighter, generally known as the Super Starfighter, is becoming a common sight in Western Europe. The first F-104s entered service in the USAF in 1958 and, although never used in large quantities, the aircraft was a big step forward in military aviation. It held both the world speed and altitude records, and several different versions were produced for the USAF.

The 104G was developed specifically for Europe. One of the many differences from American versions is its greatly strengthened airframe, which enables extra heavy external loads of fuel or weapons to be carried. Some F-104Gs have been delivered to Germany and the aircraft is also equipping the air forces of Belgium, Holland, Italy, Greece and Turkey.

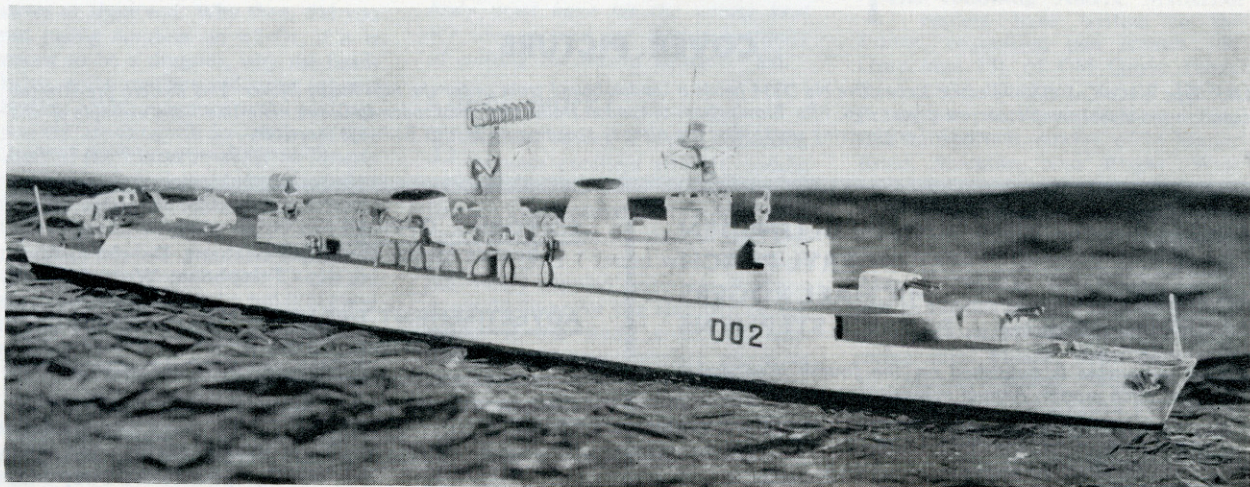
Also being built, for the Canadian Air Force, is the CF-104. Basically the same as the F-104G, it is also intended for both interceptor and ground attack duties, but has a Canadian Orenda-built engine in place of the normal European-built J79. The F-104G is powered by a General Electric J79 turbo-jet, giving a top speed of over Mach 2.0. Armament can include a multi-barrel 20 mm gun and up to 4,000 lb in bombs, as well as Sidewinder missiles. Wing span is 21 ft 11 in, and length 54 ft 9 in.

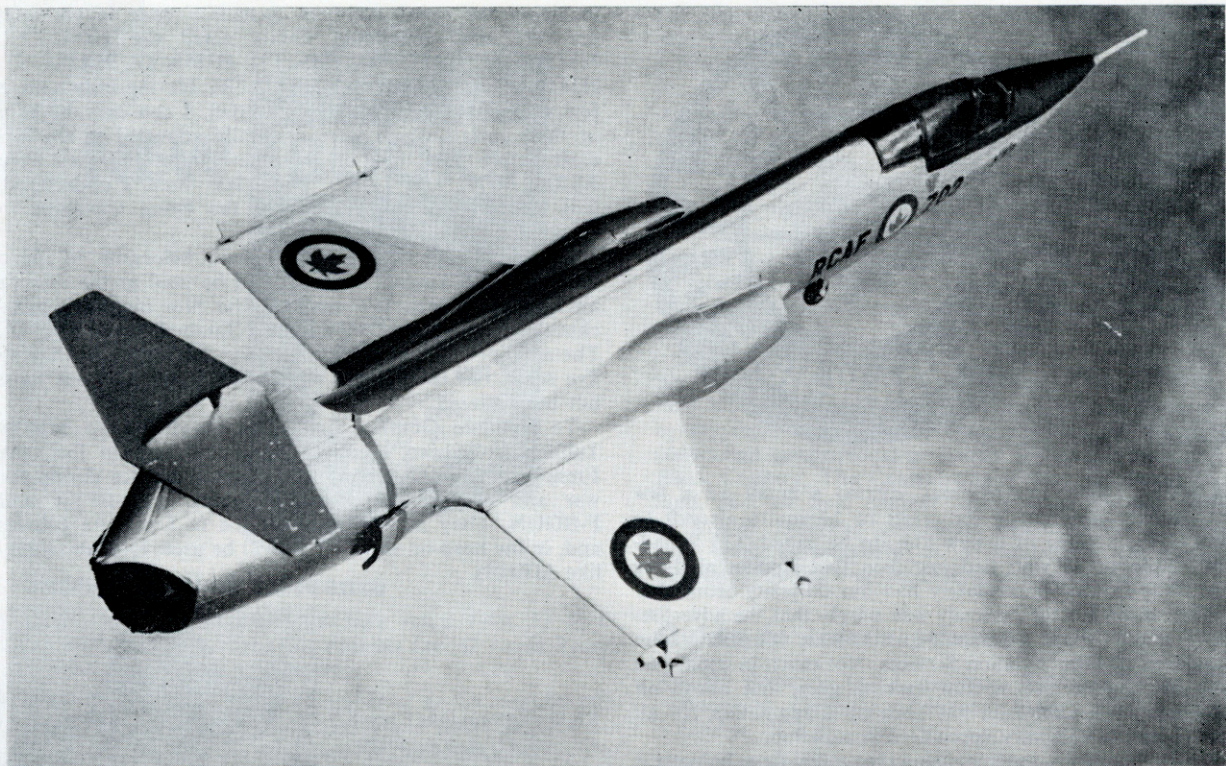
Guided missile destroyer

THE new HMS *Devonshire* kit (a fine replica of the Royal Navy's first guided missile destroyer) joins HMS *Tiger* in the Airfix Famous Warships Series 3. The kit is attractively boxed, with a colour illustration of the vessel on the lid, and comes complete with a tube of polystyrene cement, transfers and full assembly and painting instructions.

All the detail of this potent 5,000 ton warship is faithfully represented in the model. Radar scanners, 'working' gun turrets, Seacat and Seaslug guided missile launchers, a Westland Wessex helicopter, four motor cutters and a whaler slung from the davits, and full propeller and rudder parts

The 1:600 scale Airfix model of HMS Devonshire measures 10½ inches long. Among its details are 'working' gun turrets and Seaslug guided weapons system.





This picture shows the Lockheed F-104G Starfighter finished in RCAF CF-104 markings. Long-range fuel tanks are included in the kit and can be fitted in place of the Sidewinder missiles, seen on this example.

are all items which feature on this modern warship kit. When completed, the model can be displayed on the special stand supplied with the kit.

Launched on June 10, 1960, HMS *Devonshire*—a County class destroyer, will be joined in service later by her sister ships the *Hampshire*, the *Kent* and the *London*. These vessels will have, as their three main roles, escort duties with a task group (including the ability to provide guided weapon anti-aircraft defence for the group and to augment its anti-submarine capability); offensive operations as a part of a task unit of light forces, with the ability to bombard in support of land forces and to attack light forces with gunfire; and police duties in peace-time.

The *Devonshire* is fitted with an entirely new type of propulsion machinery, consisting of two sets of geared steam turbines for normal steaming, with gas turbines to provide additional boost for high speeds and for getting quickly under-way in harbour. She is fitted with the latest air and surface warning radars (faithfully featured on the Airfix model), has an operations room of new design, and is equipped with electronic plotting facilities similar to those in the aircraft carriers *Victorious* (also modelled by Airfix) and *Hermes*. Her new-style bridge gives the captain a clear all-round view, combined with the best possible protection.

This is the eighth ship to be called *Devonshire*, the name having been in use in the Royal Navy almost continuously since 1692. Most recent member of the family was the

10,000-ton cruiser of the famous London class which was scrapped in 1955. *Devonshire* has a length of approximately 520 ft and a beam of 54 ft. Armament consists of one Sea-slug guided weapons system mounted on the quarter deck (the Airfix kit reproduces this armament, in 'working' form), four radar-controlled 4.5-inch guns in twin mountings forward, and two Seacat close-range guided weapons systems fitted abaft the after funnel. In addition to this armament, she is fitted with the latest underwater detection equipment for anti-submarine work and carries a Westland Wessex helicopter.

Latest kit catalogue

SUPPLIES of the new, 1963, Airfix kit catalogue are now in the shops, price 9d each. Inside its colourful cover are 28 pages, on which can be found illustrated descriptions of over 150 kits and 15 of the popular OO/HO series scale figures.

A house for sixpence

VISITORS to the 1st Northfleet BP Scout Group's fete at Northfleet, in July, were surprised to see the slogan, 'Win yourself a house for sixpence'. Most of them must have thought this was too good to be true, until they realised that it was a model house, and garden, made from the wide range of Airfix Betta Bilda parts.

Members of the scout group assembled the model, from parts freely donated by Airfix Products Ltd, and then ran a competition with sixpenny tickets, the object being to guess the number of parts in the model. In fact, there were 1,561 parts, and the lucky winner was Mrs M. Hooker, of Northfleet, whose guess was nearest at 1,567 parts.



WHEN 'Flight International' carried a small ad a few months ago asking for pilots of Mosquito aircraft to help in the making of a new film, to be called '633 Squadron', those of us who had just seen that wonderful flying film 'War Lovers' immediately had our curiosity aroused.

The reason for the curiosity was simply that the advertisement asked those interested to contact Captain John Crewdson of Film Aviation Services. Not much in itself, you may say, but as far as film making goes, and above all accuracy, John Crewdson has built up a reputation for all that is best in this very specialised occupation.

It was, therefore, not surprising that a few days before the end of July the Buckinghamshire skies around the RAF Station at Bovingdon were filled with Mosquitos, and several other rare aircraft, and the airfield fence was covered with people like myself, all keen to have their last look at this famous aircraft before it finally went into retirement.

THE BEST YET?

'633 Squadron' is to be a film about a Mosquito raid on a secret German factory in Norway in 1943. A Mirisch Films British Production for United Artists Release, it also features a long list of real-live film stars, apart from the aeroplanes, so it looks as if all aircraft enthusiasts will have a firm date at the cinema some time in the New Year.

According to Captain Crewdson, this film is to be the most ambitious project that has been tackled to date in getting a really accurate aircraft film, which at the same time will contain some good acting and a top-rate story. 'War Lovers' was good, he says, but this one will beat them all! Filming at Bovingdon will end by mid-August, and by the time you read this story the unit will be on location in Scotland, filming the low-flying sequences around the Scottish lochs.

AIRCRAFT TAKING PART

There are eight Mosquitos, so far as my logs go, that have been used in the film. In the main they come from the No 3 CAACU unit at Exeter, which used this aircraft until recently on target-towing duties. Most of them are TT35s, but I have seen one T3 in use. Of the eight, only three will actually be used for filming the flying sequences, the others are to be used for ground taxi-ing shots only.

For filming purposes, the aircraft have all been converted into Mosquito FB6s. They have been repainted accurately,

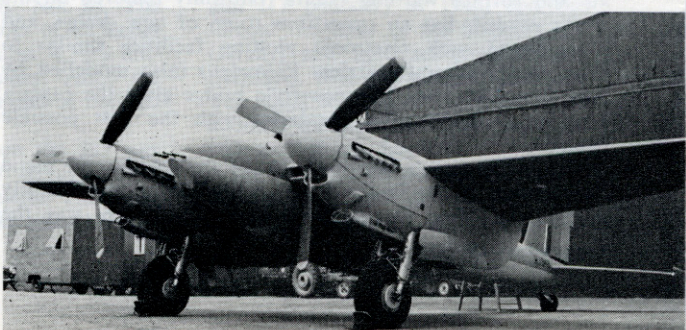
including the serial numbers. Squadron code letters used are 'HT' and individual serials noted are HJ662 'C', MM398 'P', HR155 'M' (Mk T3), HJ898 'G', HR113 'D', HJ848 'A', HJ682 'B' and HX835 'R'. Having only seen a few of the Mosquitos being repainted, I can only be sure of three serials which were originally allocated to the aircraft before they took on their new guise, and they were RS709, RS712 and TA719. These last three, I understand, will be the ones to be used for the flying sequences in Scotland.

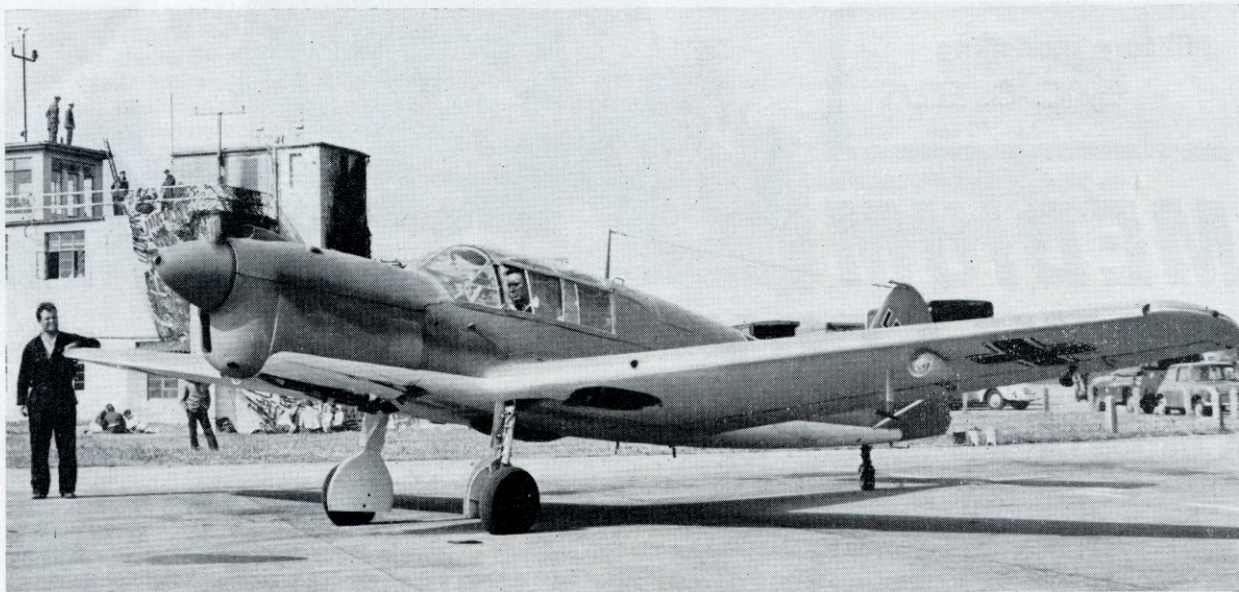
A North American B-25 Mitchell, belonging to Aero Associates, of Tuscon, Arizona, will be used as the camera aircraft, and for a few shots in the film involving parachutists. Its serial on the American 'Limited' list is N9089Z. The interior has been converted for executive use, having five seats, but the general shape and turret positions have not been altered.

To simulate German aircraft in the film, two ME108 Taifuns have been used. These aircraft are, in fact, the French version, the Noord 1002, built in France during the war and now on the French register as F-BFYX and F-BGUN. They have been repainted in Luftwaffe colours and, in the head-on shots which will be used, look amazingly like ME109s.

Right: Captain John Crewdson—pilot extraordinary.

Before and after — a Mosquito TT35 (below) being converted at Bovingdon into an FB6 (bottom).





An ME108 (Noord 1002) taxis out from the Bovingdon dispersal in full Luftwaffe markings.

I managed to catch John Crewdson for a few moments, in between sorties for the film crews, and asked him some of the many questions that must surely run through the minds of enthusiasts when they see films of this nature. On the question of accuracy, I found that Crewdson was as enthusiastic as anyone for correct detail. In advising the film company he had found a great many points that needed alteration, but had to draw the line when questions of economics and availability came up. For example, I asked why some of the Spanish Air Force Hispano HA-1112 aircraft couldn't have been used for the German aircraft as these were, after all, derived directly from the ME109 airframe. Apparently, the Spaniards put such a high price on the use of their aeroplanes that they had to be ruled out completely, and the French aircraft used instead.

COUNTING THE COST

I also remarked on the fact that no *real* conversion had been made to the Mosquito TT35s, and many of the details such as engine cowlings, cockpit canopies and enlarged bomb bays would be immediately obvious to the many thousands of enthusiasts who would see the film. The answer here was one not only of cost but also of availability. The film stars in the production all depend on contracts to complete the work on time, and the props and action of the film have to be tied in to their arrangements. It was impracticable to convert the aircraft fully in the fighter bomber version.

It was unfortunate that these modifications could not have been made, but it rested on the question of whether or not a film of this nature should have been made anyway. Seven years had already been spent on research to get

really authentic material. Crewdson was of the opinion that it was better to make the film rather than waste a great deal of time and energy going to the very ultimate end in accuracy. For the sake of the record, I agree.

Having seen some of the amazing low flying that John Crewdson and his associates of Film Aviation Services carried out for this film, I asked him for his comments on what may, to us, seem a very 'dicey' do. His answer was a simple one. 'I apply professional flying skill and knowledge to a particular requirement and fly to much closer limits than is normal', he said. 'Each operation is carefully studied beforehand and the risks taken are all fully justified'.

Crewdson keeps all the most difficult work for himself. He now has 142 films to his credit since 1953, and has flown over 70 different types of aircraft in that time.



Top, right: *The North American B-25 Mitchell used as the camera aircraft during the filming of '663 Squadron'.* Bottom, right: *War-time England, or . . . ? A line-up of Mosquitos at RAF Bovingdon.*

MEDIUM ARTILLERY

A tractor and howitzer from the Airfix 30-ton tank transporter kit

AFTER last month's very easy Churchill tank conversion, we turn to something much more advanced—the Scammel Tractor and 7.2 inch howitzer which formed the equipment of medium artillery regiments during World War Two. This 'heavy' combination makes an impressive model and packs a powerful punch (in theory at least!) for the British elements of Airfix armies. Basis for the model is, of course, the tank transporter and, with the exception of the howitzer wheels, pickings from the scrap-box, and a little card or Plastikard, all the parts required are found in this kit.

The Scammel 6×4 heavy artillery tractor, model R100—to give it its official designation—had a shorter chassis and correspondingly smaller wheelbase than the tank transporter tractor unit. Hence the first task to be tackled is the shortening of the chassis (Airfix part 15) by 10 mm. This is achieved by cutting away the 10 mm length between the middle chassis spacer and the rear wheel mountings, at the point where the chassis narrows. Both separate sections of the chassis which result from this operation are cemented together and set aside; a corresponding 10 mm length must be cut from the transmission (part 21).

CAB COMPONENTS

While you are waiting for these parts to dry, turn your attention to the cab components. On the artillery tractor only the driving cab is required, so the rear half of parts 6 and 7 is sawn off, as is the rear half of the cab roof (part 9). Finally, the rear seats and floor behind the driving cab bulkhead, in part 5, are also removed.

Now assemble the tractor unit according to the Airfix instruction sheet, omitting stages 6, 8, and 23-26. This will leave you a



An early wartime picture of the Scammel artillery tractor. It is towing an eight inch howitzer, a weapon that was succeeded by the very similar 7.2 inch type. (Photo by courtesy of the Imperial War Museum.)

bare chassis and backless driving cab ready to receive the body. Notice that the rear pulley unit (part 47) is used, since this version of the Scammel tractor, like the tank transporter unit, also carried winching equipment.

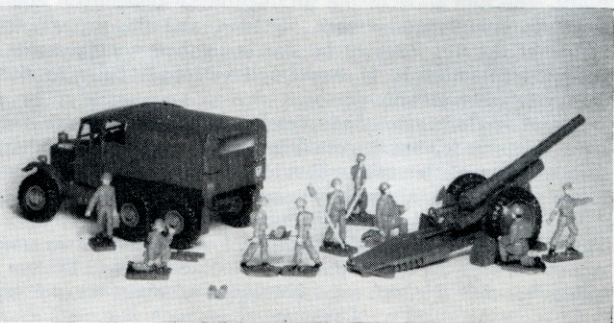
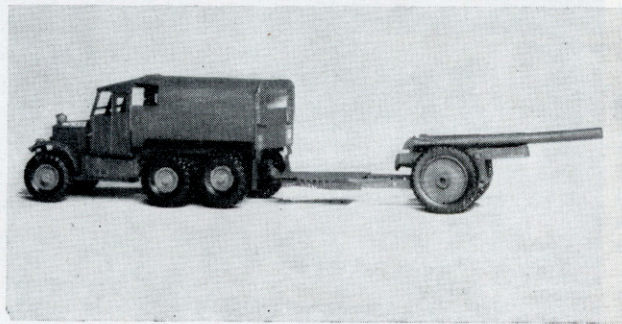
For the body you can use either Plastikard or card, cutting two sides to the pattern shown in diagram A—a floor 32 mm by 40 mm, and a tailboard 12 mm by 32 mm. Assemble the body on a flat surface, using a set square to ensure accuracy; stripwood or scrap plastic on the inside corners will help here as well, and will also strengthen the structure.

PACKED WITH PLASTIC

The body sits on the chassis so that the lower edges of the sides are 3 mm above the top of the wheels. To achieve this it is necessary to pack the chassis with plastic, and I found that the turntable (part 50), slightly thinned down, was a convenient component for this purpose. The gap between body and chassis is filled with two card or Plastikard strips, 5 mm by 40 mm, cemented under the body floor in line with the gearboxes. Now salvage the discarded passenger seats from part 5, and cement these into the body against the cab bulkhead—these are provided in the artillery tractor to accommodate the gun crew.

Good quality cartridge paper is the best material for the tilt (diagram B). Use a pencil or pen to curve it to shape, cementing it into position inside the body to follow the radius of the cab-roof. At the rear, part 10 is used to form the back screen and this makes the whole tilt nice and rigid. All that is now needed are small rolls of tissue paper to represent canvas screens above the openings on each side, while rear mudguards—which are simply rectangles of card 13 mm by 4 mm 'stepped'

Left: The completed Scammel 6×4 artillery tractor and 7.2 inch howitzer. Below: Ready for action with the howitzer, showing adaptations to Airfix figures to provide a gun crew. Note the recoil ramps behind the wheels, and the ammunition cradle carried by the supply numbers in the foreground.



inwards a third of the way down—are cemented below the tailboard.

Despite its complicated appearance, the big 7.2 inch howitzer is a very quick model to make. Diagrams C and D show the major parts required to form the gun carriage, and in E I have sketched an 'exploded' view showing how these are put together. The front end of part 59 provides the trail, and this should be cut off straight through the moulding pips on the underside. A piece of card is cut to shape and cemented on top of the framework to give the trail a 'solid' appearance. The gun carriage sides are cemented to the trail at an angle, so that they converge inwards to a width of 14 mm. Then a 14 mm length is cut from part 100 and cemented across the end like a 'keeper' on a magnet, thus completing the carriage. The axle is simply part 88, cemented across the carriage 10 mm from the end; small notches have to be cut in the triangular side pieces to clear this axle.

USE RAPIER WHEELS

Being no lightweight—it scaled 10 tons—the 7.2 inch howitzer had monstrous wheels, no less than 5 feet 6 inches in diameter. Nearest to these, both in pattern and scale diameter, are those of the Airfix Sunbeam Rapier, but if you don't happen to have a pair of these in your scrap-box then you might be able to find other wheels of suitable size.

That versatile component, the empty Biro refill, is used to form the barrel, cut to a length of 56 mm. This is bound with a few turns of Sellotape at 22 mm, and again at 36 mm, from the muzzle to represent the jacketing. For the recuperator, to which the barrel is cemented, a 34 mm length of $\frac{1}{8}$ inch strip-wood suffices. To mount the barrel so that it can be elevated and depressed, drill holes through the top corners of the triangular side pieces, and another hole through the recuperator 15 mm from the muzzle end. (These holes are best drilled before assembly.) Then a tight-fitting length of suitable scrap plastic—in my case the piping from a Watney's trailer—is used to form a trunnion. The axle, incidentally, acts as a 'stop' on the model to prevent you from elevating the barrel too far.

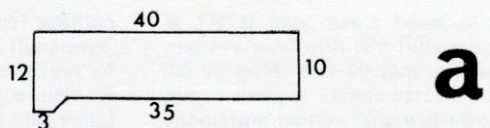
All that remains are the details; parts 95 and 97 with the lugs chopped off form 'spades' on the trail; part 51 makes the breech; and a piece of sprue with a tiny wheel (you can use the steering wheel of the tractor) represents the laying apparatus. Above this, cement a ranging quadrant cut from card and then cement another piece of card to the recuperator for a loading tray. Last of all, a towing eye is required and this is furnished from part 107.

INTO ACTION

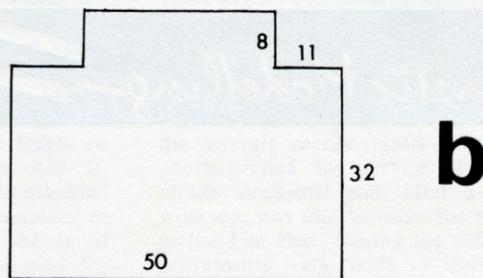
Quite a lot of fun can be had with this model when you take it 'into action'. You need to recruit a sizable gun crew from the Airfix infantry set, and some of these can be seen in the photograph. The 7.2 inch shell weighed 200 lb, and a special cradle was provided to transport the ammunition to the breech. In miniature, this can be represented by two pieces of fine wire and a scrap of card; the stretcher bearers make suitable 'supply numbers'.

The men with jerry cans are particularly useful, once the cans have been removed. One of these chaps in the picture holds a rammer (made from scrap plastic) and another has one of the big levers used to position the gun. Two kneeling figures from the 25 pounder set make a gunlayer and a breechworker, while the radio operator is needed to maintain contact with the forward observation post or the AOP Auster. The 7.2 inch howitzer had a maximum range of 16,000 yards and usually operated in conjunction with a spotting officer who reported

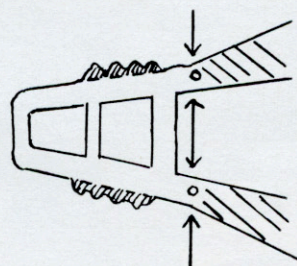
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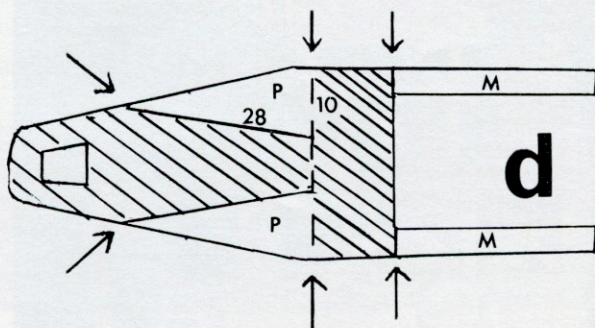
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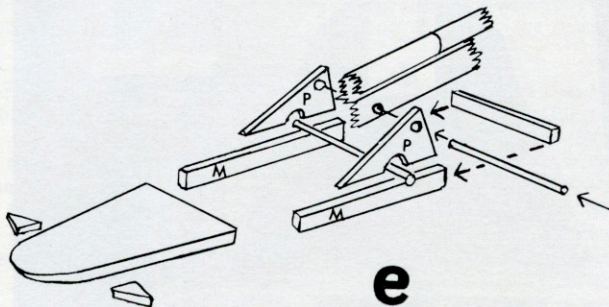
b



c



d



e

(a) body sides (two required); (b) tilt; (c) Airfix part 59, from which the trail is obtained; (d) Airfix part 58, from which the gun carriage is obtained; (e) assembling the howitzer (wheels and details omitted). All dimensions are in millimetres; discard all shaded parts.

FOLLOWING last month's initial description of the construction of our working model overhead travelling crane, we come now to details of how the various mechanical elements operate. The drawing with the first part of this article showed the general layout of the motor and the worm drive to the hoist drum. There remains the means of getting the current to the motor from the crab rails. If you refer to detail A in the drawing you will see that there is a wire current collector bearing upwards on the underside of the rail on which the crab traverses. There is one of these collectors on each side of the crab and a motor lead is connected to each collector fixing screw. It is best to have the collectors bearing *upwards*; this stops any tendency for the crab wheels to 'jump' the rails. As I said last month, an insulated lead is taken down from each rail—where to I will deal with later.

THE TRAVERSING MECHANISM

Photos 1 and 2 show this clearly, although they *also* show clearly that the worm on the motor shaft is out of engagement with its worm wheel on the screwed rod. As things are at the moment, I am some 50 miles from Eric Thorp, who takes these excellent photographs, and models in transit between us often get damaged, however carefully they are packed. In this instance, the motor mounting plate had 'sprung', allowing the weight of the motor to pull the gears out of engagement. However, your model should not need to be entrusted to the gentle care of the postal authorities, so you need not run this risk! Photo 2 shows how the screwed rod is threaded tightly into

Overhead tra

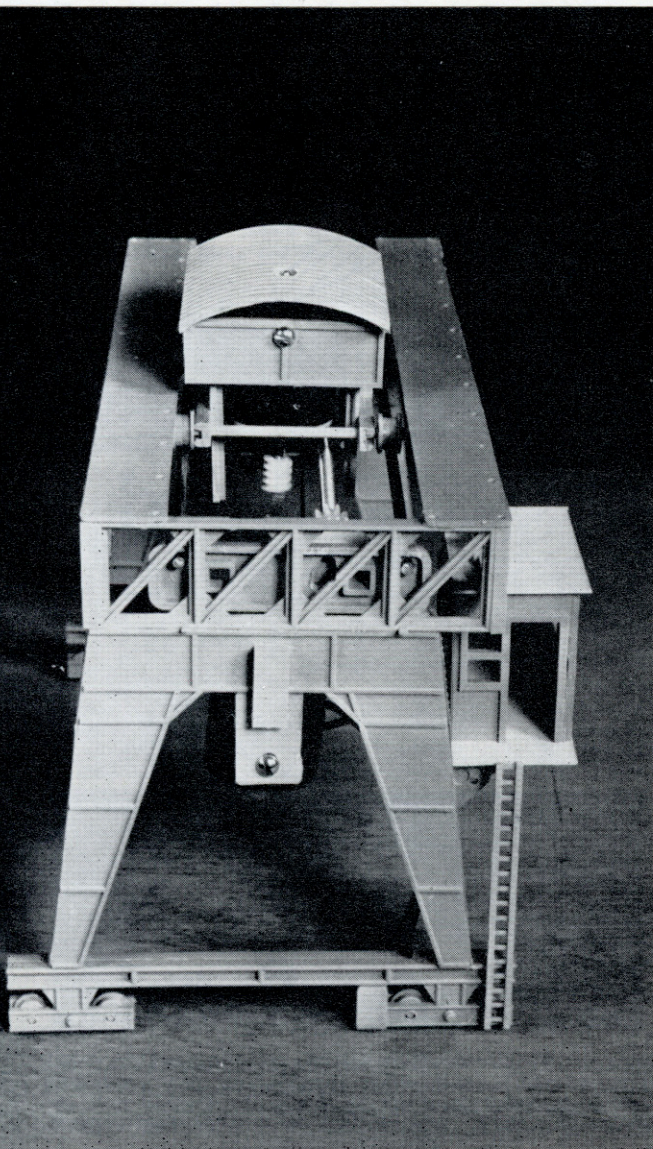
the plastic end of a brass-bushed 10 tooth gear wheel; a short length of brass rodding is then locked in the other end of the gear wheel, journaled in a hole in the end plate. Photo 1 shows how the screwed rod is offset considerably from centre to clear the hoist motor and gear; it is also $\frac{1}{2}$ inch *below* the level of the crab rails. The 'captive nut' I mentioned last month, which draws the crab along, is heated and sunk into a thick piece of plastic—it will make its own hole and be firmly embedded when cold. The plastic is then cemented inside the crab to one of the side plates.

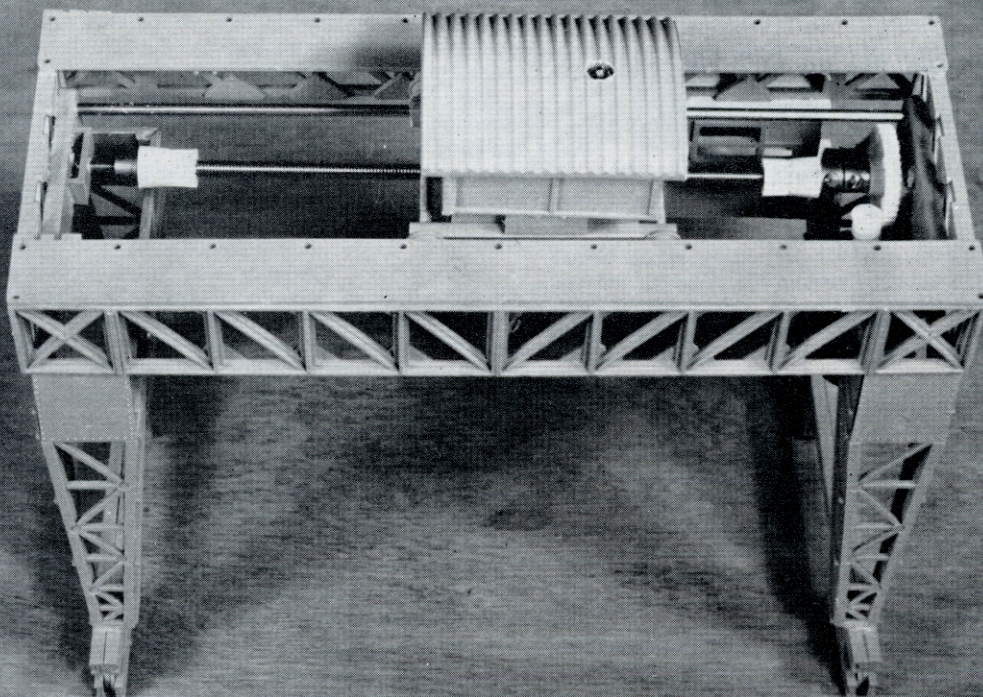
TRAVELLING MOTION

The crane travels on rails, which should preferably be 'let in' to the ground—or (easier to do) the ground should be built up flush with the tops of the rail with card or thin balsa sheet. Probably the simplest way of fixing a travelling motion is to use the same method as I drew last month for the crab traverse, with pulleys in slots in the baseboard at each end of the crane track. You can work it with a crank on one of the pulleys or with a double reduction drive from another Ripmax Orbit 305 motor.

The final problem is getting the current to the two motors

Photo 1: Showing hoist motor in the crab, and control cabin details. Note that the screwed rod is offset considerably from centre to clear the hoist motor and gear.





travelling cranes

in the moving crane from the control panel. Two methods are possible:

a. Have a slot in the baseboard just inside one of the travelling rails and take the four insulated leads down a short length of tube, leaving plenty of slack, and connect them directly to the control panel. If you do this, use *multi-strand* layout wire—Hornby-Dublo layout wire is excellent for this.

b. Lay a *third* rail just inside one of the travelling rails and fix three thin wire current collectors to the plastic bogie beams. The two travelling rails then provide the positive connection to the two motors, whilst the common return from *both* motors is through the third rail. This is a simplification of the method I used for current collection in the Dock Crane I described previously in *AIRFIX MAGAZINE* (June and July 1962). It is best to run the crane from a separate 3-volt battery—do not attempt to use current from your 12-volt railway supply or you may easily burn out the motors, which are designed to run on 1½ to 3 volts.

Readers are regularly writing to me and to the Editor asking where the parts I use in these articles can be bought. Most model shops selling plastic kits or model aircraft stock Ripmax plastic gears, brass rodding for axles and miniature Japanese motors, such as Orbit or Kako. Many model railway shops sell Plastikard and Mekpak, the liquid cement for it, but if you have any difficulty in getting them locally you can always write

Photo 2: Showing clearly the screwed rod for the traversing mechanism. The reason for the worm on the motor shaft being out of engagement with the worm wheel on the screwed rod is explained in the text.

direct to G. N. Slater, 6 Dalveen Drive, Timperley, Altrincham, Cheshire, but please do remember to include postage with any order you place.

I should like to acknowledge with thanks the great help I have received with prototype information from Messrs Herbert Morris, of Loughborough, whose photograph I used last month.

Copyright, Mike Bryant, 1963.

Military modelling—Continued

range corrections back to the gun.

Also shown in the picture are the recoil ramps, made from scrap balsa in model form, but in reality made from metal-shod wood and placed behind the wheels. The gun was fired with its hydraulic brakes full on, but still managed to run back to the tops of these ramps. When the outfit was on the move, the ramps were usually lashed on to the trail, along with all the spare chocks and levers. My tractor carries the red and blue RA emblem and the Eighth Army formation sign, which consisted of a gold 'crusader's' cross on a white shield, all upon a square blue background. It is in 'European' finish, denoting the period of the campaign in Italy.

Like the tank transporters, artillery tractors often carried names, such as 'Hard Hitter' and 'Connaught', painted on the cab front above the windscreen. 'Connaught' had small Donald Duck emblems on the cab doors, and this would certainly add an amusing touch to the model.

LAYOUT REALISM

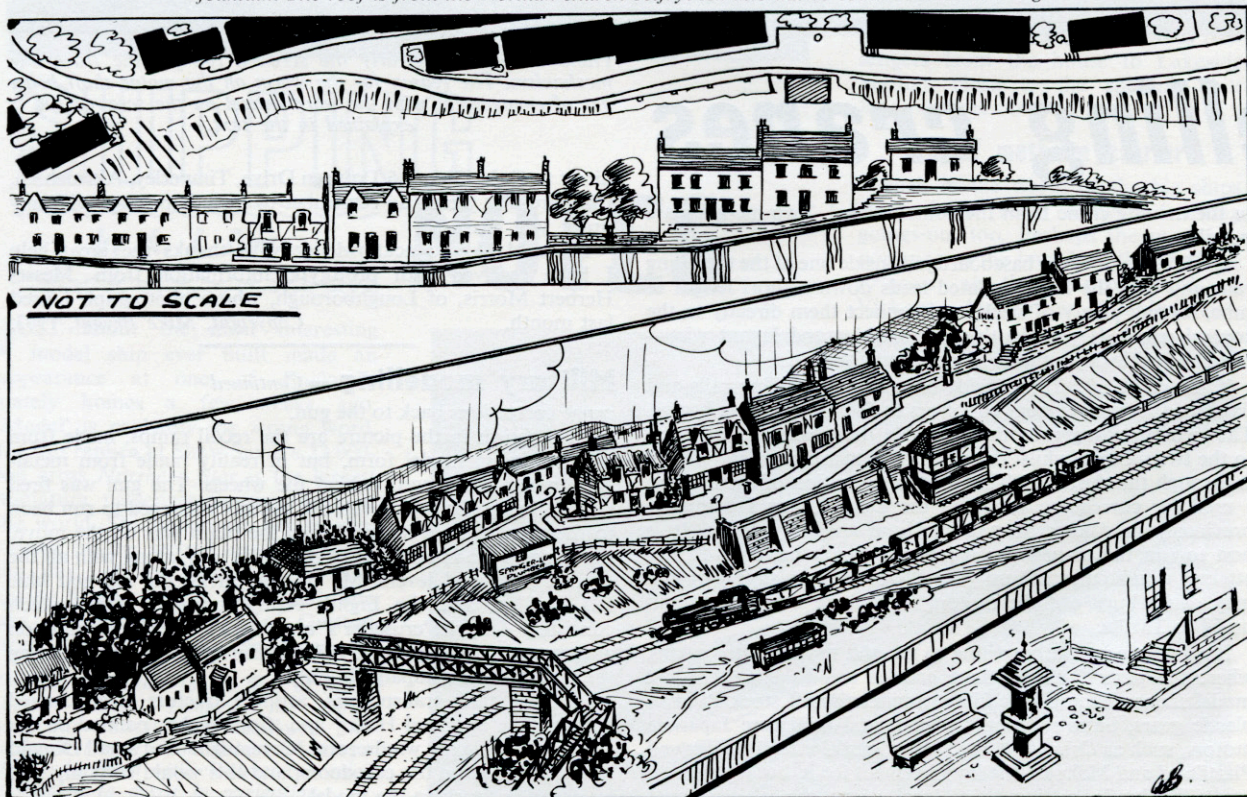
—by Alex Bowie

A FAULT with some layouts purporting to be branch lines is that the buildings swamp the railway, until you can hardly see it. I think the trouble is that many models are built by townfolk, who wrongly apply the excessive over-crowding of the town to a small branch line, with incongruous results.

Observe a *city terminus* and you see that, quite frequently, the original station building was built so that its façade and approach could be seen by all and sundry. But the impressive railway station, in a way, digs its own coffin. Its presence increases land prices in the area, and in time land becomes so valuable that inevitably new buildings begin to creep up almost to the door of the station. London's Kings Cross is a prize example, and what was once a building towering above its surroundings is now lost behind a collection of nondescripts.

In most small towns and suburban areas, however, there

Fig. 1: A street which winds and has steep gradients can be more interesting and a little more original. Note typical seat and drinking fountain. The roof is from the Norman church belfry. An alternative could be a horse trough.



is space. In villages there is so much that the station might even be a mile or so away from the village. Thus, when modelling a small layout you can quite legitimately thin out the buildings in the area of the station, and put the main street further up the line. The station area will then not be cluttered up with extra buildings, which distract attention away from the railway buildings.

But even foliage—if it is too bright in colour—can draw attention away from the station. For example, a dull-painted building situated near some bright green grass will be receiving strong competition from the grass, and half the time the eye will be drawn towards the grass. If the grass is toned down, and the station paintwork kept spick and span in the traditional manner, it will not have to fight for attention.

As for grass, I will repeat that British grass is a luscious, uninhibited green. It is, in fact, one of the first things that attract the eyes of those from overseas. But, for model purposes, it can be toned down by introducing a perfectly natural colour—earth brown. If a very thin wash of brown is overlaid on top of the green, or mixed in with it when painting, this will take the edge off the colour, without making it appear false. But don't overdo it. Your grass should be just a *shade* too bright for your liking. It will soon tone down further of its own accord.

When you add trees, don't take the colour from spring foliage, which is bright, and hardly different from grass. Paint or dye them a little darker. This not only represents average foliage later in summer, but will make them contrast with the grass without being too obtrusive.

Over the past few years, scenic work has improved

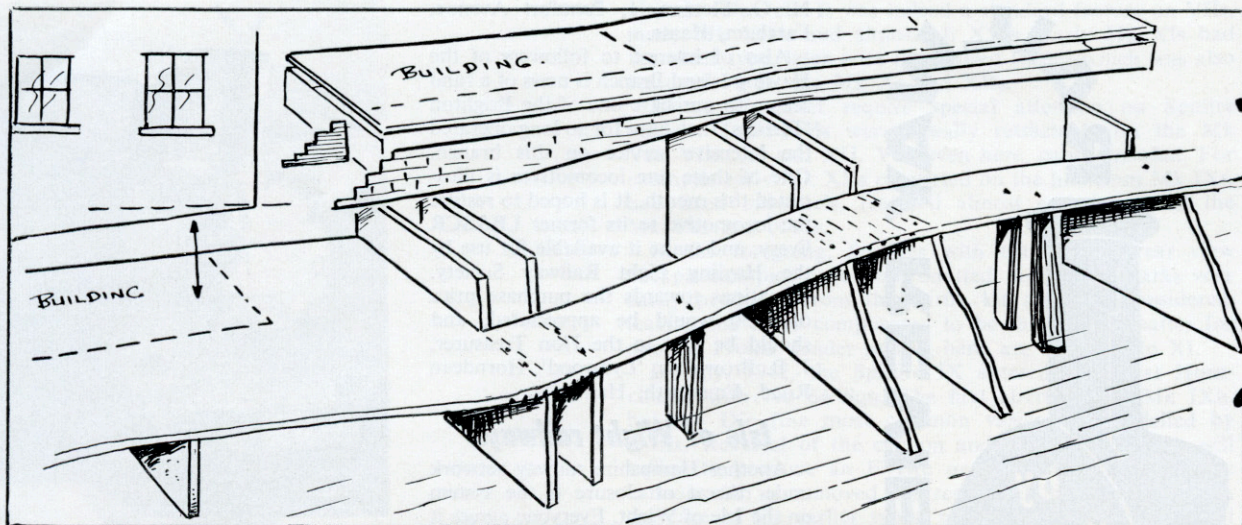


Fig. 2: Softboard foundations are not difficult to make. They should be solid, but you needn't be fussy about what's out of sight. Scrap materials are good enough. Pavements, raised or otherwise, can be of card or plastic. The paving in the station platform kit is very good material for the job.

enormously. There are now hundreds of good layouts, but it is natural that a few stand out from the others. The difference between the average layout and the outstanding one is often quite small. Frequently the workmanship is of the same standard, but a little extra effort has been made to add extra character. This character is not easy to define. Villages and models are inanimate, and the only way they can express character is by the way they attract the eye.

Now one person may not have the same ideas as another, but most agree that certain features of British township are undeniably attractive. Our winding and narrow streets, for instance, and the higgledy-piggledy way in which buildings are put together—a case of the long and the short and the tall all built side-by-side. Planners might disagree with these endearing characteristics, but one is hardly concerned with that when modelling.

Introducing character

Having fastened on this winding and curving as being one way of introducing character, let's develop the theme further. If roads that meander from side to side have the necessary quality, what about introducing some ups and downs? This ability of the old British road makers to compress a dozen gradients and dangerous bends into a few miles may drive motorists into hysterics, but for modellers it's just the job.

In Figure 1 this month I've taken a section of scenic work, loaded it with some typical eccentricities, and what have we got? A very characteristic British road scene, crazy as it may be, but we'll hate the day when the planners decide that it will have to go.

Study Figure 2. The up-and-down roads, complete with areas on which the houses are built, can be made on a foundation of softboard, raised on softboard uprights. Softboard will only need to be supported every nine to twelve inches, but where a little sag is suspected, pieces of rough wood can be tacked in place.

The raised and stepped pavements, which no doubt keep the country folk in far better trim than we city chaps, is very common in prototype. Modelling them isn't all that difficult, and Figure 2 will give you ideas to get started on.

But note that the plastic buildings will have to be altered to suit the contour of the ground. In Figure 3 you can see how that's done, adding a little spare plastic to the bases A and, if needed, chopping just a little off in places B, so that the bottom edge of the building follows the contour of the pavement. And while you're at it, you might work in a few basement windows and steps, C and D.

Now have another look at Figure 3. E shows how a building can be set at an angle to its neighbour, by cutting roof and back shorter. The side can be left off and the buildings cemented together. F shows how a building can be set at the opposite angle by inserting an extra piece. Lower down in the sketch we have more roof treatment. Where a building is lower than another its chimneys should be brought up to the same height (this is essential in prototype) as at G or H.

Now take J. This shows a roof of a half-relief building which butts right into the back scene. To make the building as shallow as possible, the roof can be cut lower, as shown, and not at an angle, as at K. As an alternative, the roof can be cant to a steeper slope. This will also help in getting the building shallow.

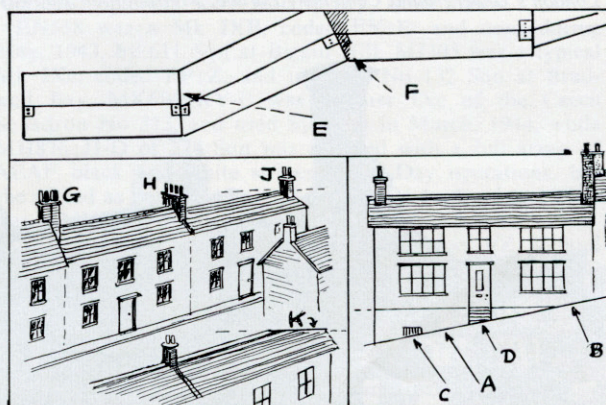


Fig. 3: You will have to chop the plastic kits about a bit, but the effect will be worth it. (See text).

RAILWAY MAY REVIEW by Norman Simmons

THE Hayling Island Railway Society have announced plans to operate a regular passenger service if British Railways completely close the Hayling Island Branch. The Society hope to purchase single deck electric rail-cars to operate the line. They have been unable to purchase the three ex-ER Grimsby & Immingham Electric Light Railway cars but, despite this setback, support for the Society's proposals is growing and they are hopeful that other modern single deck electric rail-cars will be available for purchase.

Full particulars of membership of the Society, and of its proposals should closure of the line be implemented, can be obtained from the Hon Secretary,

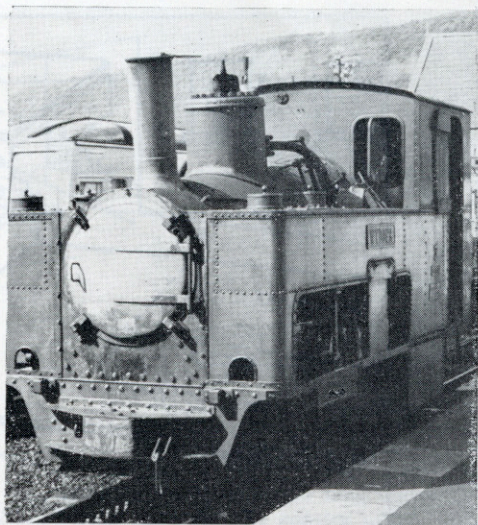
N. G. Sloman, 1, Beaufort Avenue, Fareham, Hants.

Also of interest to followers of the Hayling Island Branch is news of a fund set up to purchase one of the Brighton 'Terriers' that have for so long operated the intensive service on this branch. One of these fine locomotives is illustrated this month. It is hoped to restore the locomotive to its former LB&SCR livery, and make it available for use by the Hayling Light Railway Society. Donations towards the purchase price of £750 would be appreciated, and should be sent to the Hon Treasurer, J. B. Brownlow, 'Lynwood', Horndean Road, Emsworth, Hants.

Isle of Wight railways

Another Hampshire railway network under threat of closure is the system on the Isle of Wight. Everyone agrees it does a wonderful job, and in the peak summer months it is hard to visualise how any other form of transport could cope with the traffic it carries.

Transporting private cars to the Island is expensive and severely restricted by the capacity of the car ferries. In this motor car age, the Isle of Wight is somewhat unique in that the large majority of holiday-makers come by public transport. Within minutes of a boat arriving at Ryde Pier Head, several hundred tourists and their luggage are on their way by train to the principal holiday centres of the island. An excellent timetable offers frequent regular-interval trains that are well patronised, while the service is punctual and the staff courteous and efficient. The one difficulty is that the rolling stock and equipment is hopelessly out of date. BR say there is no suitable modern mainland stock that could be transferred to the island, and they regard the



No 3 Wyddfa at Llanberis terminus, Snowdon Mountain Railway.

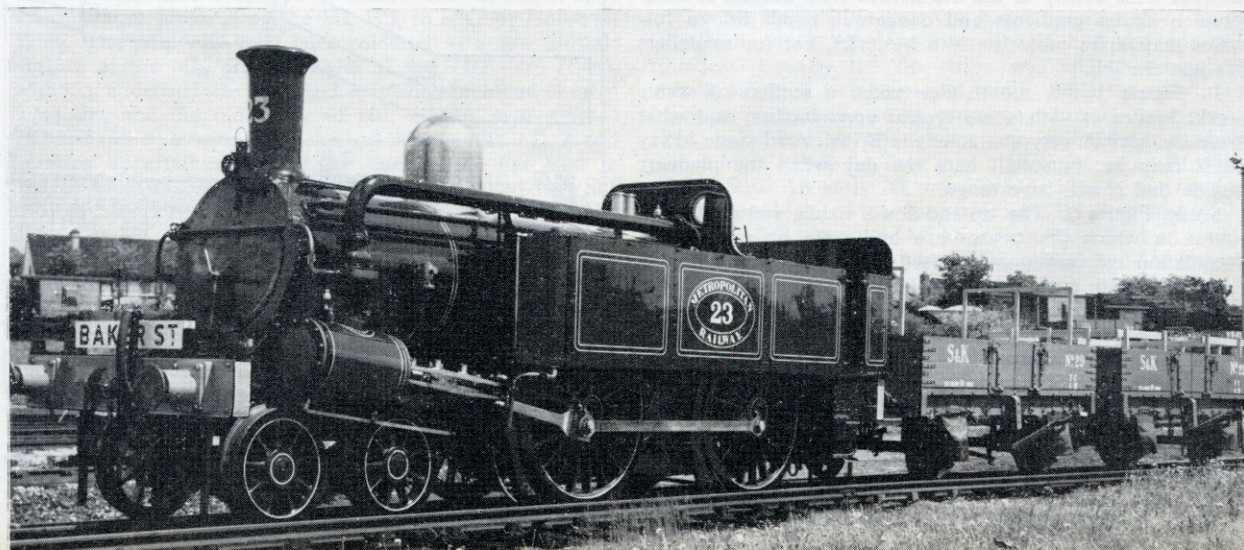
seasonal holiday traffic as insufficient to warrant the high capital cost of replacing the outworn equipment.

British Railways latest idea (to follow their proposed closure of the railway) is to strengthen the Ryde Pier and operate a much increased tramway service (a tram already operates alongside the railway on the pier).

100 years Underground

This year's Underground Railway Centenary was celebrated by London Transport in grand style. One of the principal events was a parade of rolling stock before 1,000 specially-invited guests at Neasden Works. No less than 15 trains took part in the parade. They ranged from No 23, one of the original old Metropolitan 4-4-0 tank locomotives (hauling wagons resembling contractors'

London's Underground Centenary Parade. Metropolitan Railway No 23, with two wagons resembling contractors' wagons of 1862.



wagons of 1862), to the latest Metropolitan Line 'A' Stock 'Silver' trains.

Another interesting exhibit was ex-Metropolitan Railway 0-4-4 tank locomotive L44, hauling the four former Chesham Branch coaches now, of course, owned by the Bluebell Line. These coaches were originally built for the Metropolitan Railway between 1898 and 1900, and the stock was converted to electric working between 1906 and 1924. Six survivors were reconverted to steam working specially for the Chesham Branch in 1940/41. Other exhibits included various types of electric multiple unit stock as well as steam, electric and battery service locos hauling representative trains.

Autumn rail-fan specials

Some exciting rail tours are planned by various railway societies this coming autumn. They will provide many opportunities for enthusiasts to see unusual locomotives in unusual places, and afford rail travel at bargain prices.

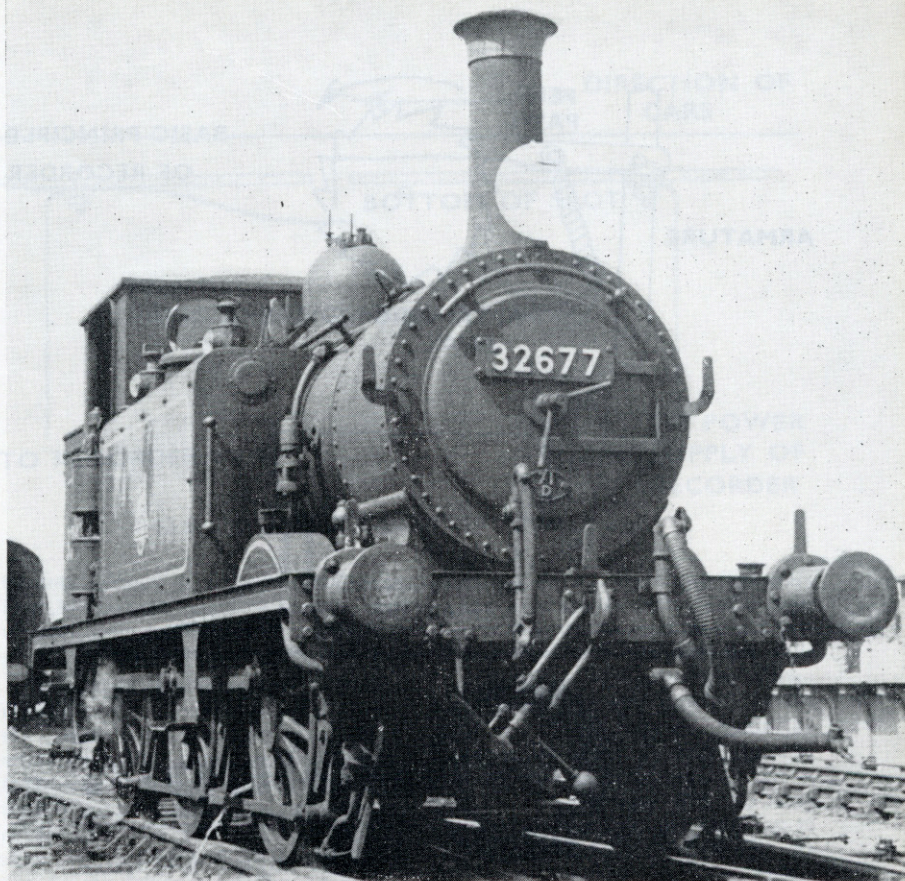
The Derbyshire Railway Society are planning an ambitious two-day rail tour, starting from Leeds on September 7 and picking up *en route*. The tour takes in Swindon works, shed and museum, Eastleigh works and shed, Nine Elms, Reading, Didcot, Oxford, Banbury and Tysley.

The same Society will run another special on September 21, from Paddington to Doncaster Works. This time a King and either a Castle or County will haul the train.

September 15 will see the Caledonian Railway Single, No 123, down south when, in company with the preserved T9, No 120, it will haul the 'Scottish Belle' from Victoria to the Bluebell Line. The T9 will be out again on October 6, when the Railway Correspondence and Travel Society will run a special train from Waterloo to Bournemouth, up the S&DJR to Highbridge, then via Bristol, Bath (Green Park) and Templecombe, back to Waterloo again. On the same day, another Somerset tour will take place when the Home Counties Railway Society run the Mendip Rail Tour, from Paddington to Bristol, Yatton, Cheddar, Wells, Shepton Mallet, Westbury, Salisbury and return to Waterloo. 45552 *Silver Jubilee* will be one of the locomotives rostered for this trip.

Saturday, October 12 will see the T9 in action once again, when the Locomotive Club of Great Britain will run a special train from Waterloo to Reading, Oxford, Worcester, Birming-

September, 1963



Brighton 'Terrier' 32677 running round its train at Havant, the junction for the Hayling Island Branch.

ham, Gloucester and return to Paddington. A Jubilee and a Castle will also be used on this trip.

Lastly, Ian Allan will be running a 'Sentimental Journey to the West' on Saturday, October 19, when 4472 *Flying Scotsman* will haul a special all-Pullman train from Paddington to Taunton, Barnstaple, Ilfracombe, Yeoford, Exeter Central, Salisbury, Basingstoke, Reading and return to Paddington.

Snowdon Mountain Railway

A recent visit to North Wales gave me the opportunity to see the 2 ft 7½ in gauge Snowdon Mountain Railway, Britain's only rack railway. There was a good deal of cloud surrounding the summit on the day I visited the line, but traffic was heavy and all available trains were in use.

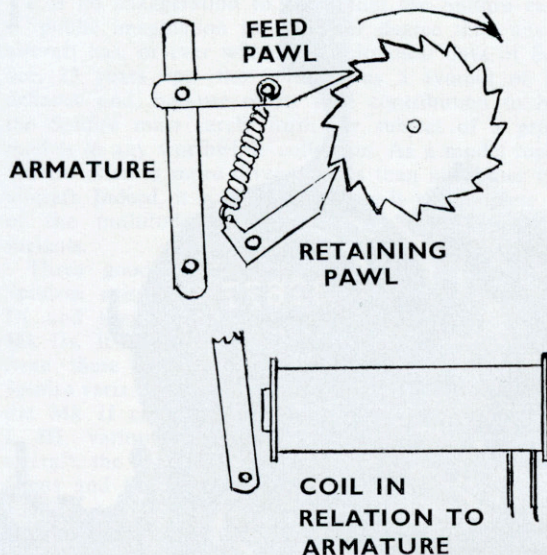
Each train consists of one bogie coach propelled by one locomotive. The coaches are painted red and cream and the locomotives green. There are seven tank locomotives, and all are of the 0-4-2 wheel arrangement. They are all named, and starting from No 2 (there is no number 1) they are *Enid*,

Wyddfa, *Snowdon*, *Moel Siabod*, *Sir Harwood*, *Aylwin* and *Eryri*.

My photograph of No 3 *Wyddfa*, one of the original Swiss-built locomotives, clearly shows the toothed rack rail in the centre of the track. This is engaged by a cog wheel on the locomotive, thereby ensuring perfect adhesion, even on the steepest gradient—which can be as much as 1 in 5.5. The train travels very slowly, no more than about 5 mph, and the journey to the summit of the 3,560 feet high mountain takes about an hour. The railway is extremely popular among holiday-makers, and large queues can be found waiting for a train on a fine day, when magnificent views can be obtained from the summit.

Locomotive notes

Reported deliveries of new BR locomotives are: D1022 *Western Sentinel*, D1067 *Western Druid*, D1068 *Western Reliance*, D6850-7, 60-1, D7086-9 to the Western Region; D57, D5206-14, 16, 23, E3081, 9 to the London Midland Region; D1527-9 to the Eastern Region; D8517, 22, 34, 37-9, 41 to the Scottish Region.



BASIC PRINCIPLE OF RECORDER

Sketch A: On the actual unit, known as a 'remote contactor', provision is made to move more than one tooth at a time. This would give wider divisions on the scale or dial.

of recorder on the market, and these are essentially for working on their individual tracks. They are mechanically operated and, to a large extent, fulfil the above requirements. But, obviously, they do not cater for items 2 and 3 in my five-point plan.

A purely mechanical recorder to measure up to all our requirements will need a spot of research. So, until I can come up with such a device, I will deal with the electro-mechanical idea. The basic materials for this type can be obtained fairly easily from government surplus shops. It is virtually a rotary switch, and comprises a relay whose armature operates a pawl engaged with a ratchet wheel. The sketch (A) indicates the idea. If we fix a pointer to the spindle of the ratchet wheel, and mount a suitably drawn dial behind the pointer, we have the display for one lane or slot.

It is quite simple to mount the two, three or four required upon a small panel of hardboard, with feet to be free standing. The position of the recorder is not governed to the same extent as a purely mechanical unit.

Wheelspin

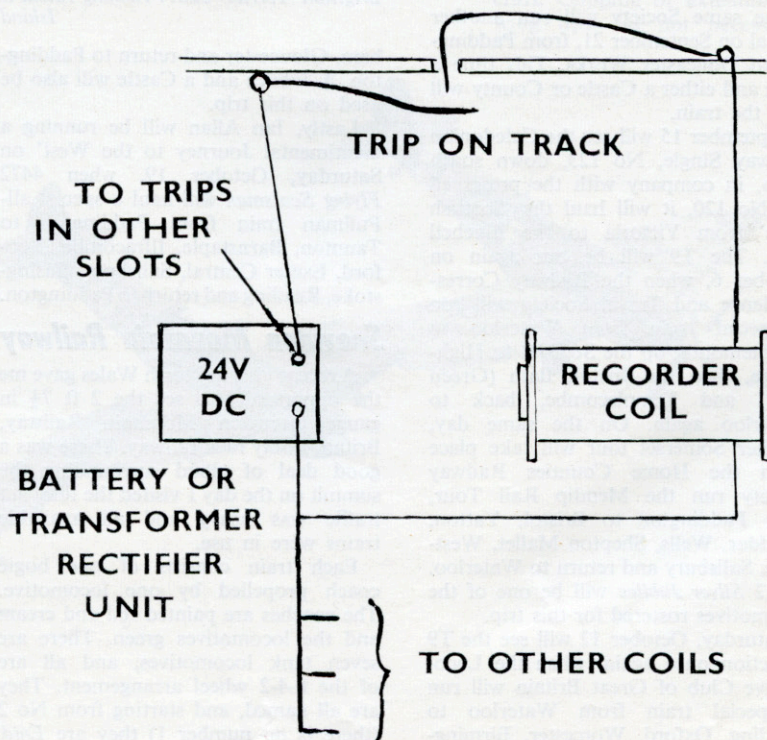
BY BERT LAMKIN

Do-it-yourself lap recorders

IN last month's article, which dealt with rules and regulations for slot racing, I made brief reference to lap recorders, without going into their actual construction in great detail. Bearing in mind that on most circuits they are a distinct asset, it is perhaps now appropriate to put down a few useful ideas on paper for those who feel like making their own versions.

Firstly, however, we should consider the chief aspects which govern the design of miniature circuit lap recorders. These I would enumerate as follows: (1) Consistency in operation. (2) Adaptability to various types of track. (3) Ability to operate with cars of various speeds and weights. (4) Clearly visible numbers. (5) Simplicity of installation.

There are three proprietary makes



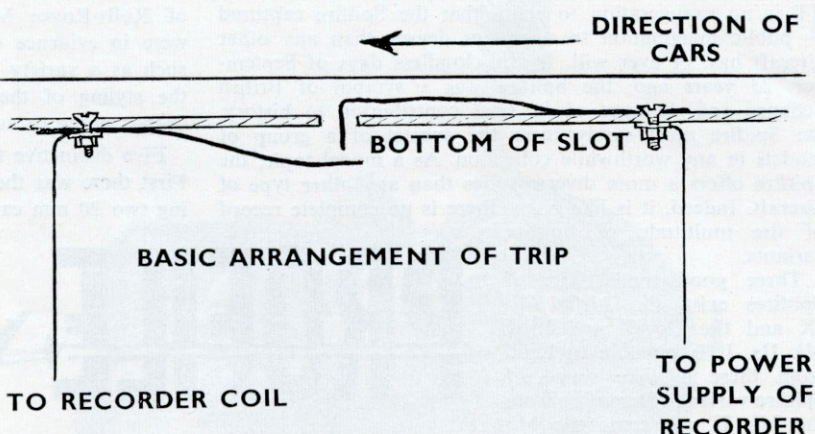
Sketch B: Wiring circuit, using the trip method.

Alternatively, if you are lucky enough to have a room purely for racing activities, the recorder could be fitted to a wall—higher than the spectator's heads, of course.

The next thing is to provide the necessary actuation to the recorder. This means supplying an electric current from a battery or mains supply, the current being governed by the passage of the cars on the circuit. A sketch (B) again illustrates the basic circuits. This governing of current by the cars can be achieved in two ways—either by operating a mechanical trip in the slot, or by the car motor completing electrically a local circuit.

Allow enough room

Taking the trip idea first, the actual construction is dependent on the type of track one is using. If, for example, it is Airfix, then the idea shown in sketch C can be adopted, always bearing in mind that the car deflects the trip, and not vice versa. So the length of contact blade is directly related to its thickness. I have not shown any exact measurements, because one usually has to experiment. A point to be noted with this method is to allow sufficient room beneath the track for the system to operate. If you try to



Sketch C: Cross-sectional view of the circuit trip.

fit both springs in the slot, you will have to work to very fine limits—the distance from the bottom of the guide pin to the slot floor is quite small.

The major requirement is a good electrical contact, with a time factor—not just a 'flick'. On one circuit with which I have had experience, it needed four-inch blades to give the necessary time factor. The speed and the weight of the cars used will obviously influence your final results, but one should aim for the device to be effective, even

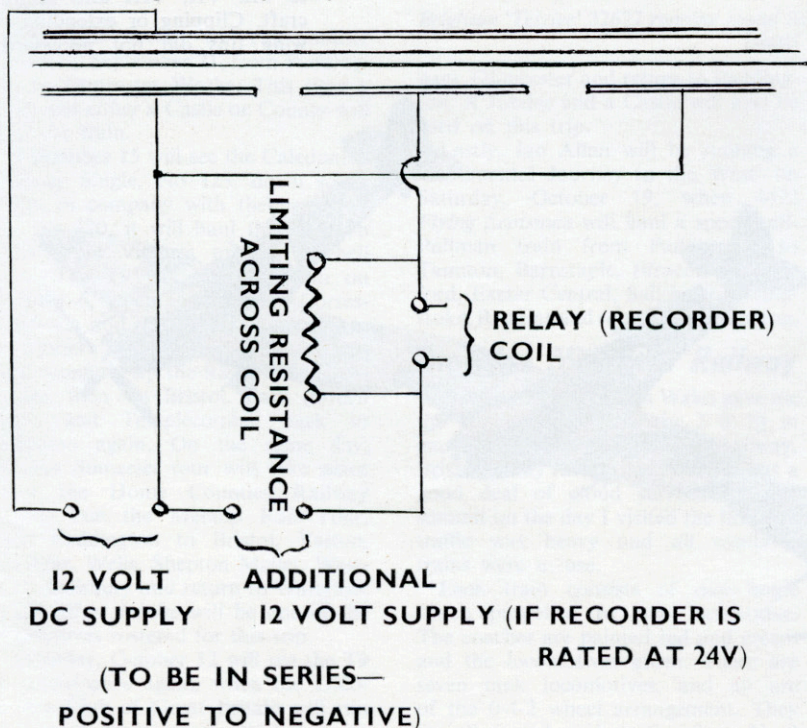
if the car is not travelling 'flat out'.

The 'local circuit' method of actuating the recorder means isolating a part of one of the track conductor rails or strips. This isolated portion is then wired to the power supply, via the relay coil of the recorder. Again the diagram (D) shows the principle. The main requirement on this system is that the current value with the relay in circuit should not be such as to cause overload on the car's motor. As the usual voltage for the ex-Air Ministry equipment is 24 volts, then a suitable shunt will be needed across the relay coil. Here a little experimenting, using Ohm's Law, would determine the correct value of resistance needed.

Isolated section

In the trip method this condition does not occur, because the recorder is independently supplied. To obtain the isolated section on Airfix track would entail slipping one of the T section rails out from each slot in a straight section, cutting these into three lengths, and replacing with a small gap between. These rails are retained by a pinch under the section, so you would have to drill two more holes to locate the middle piece of rail.

I mentioned Ohm's Law on the assumption most readers are aware of the formula essential for all electrical calculations. If you possess a Multi-meter such as the Avominor, or a similar instrument, you will be able to measure the values direct. In fact, if one is involved in electrical modifications, such an instrument is rather essential.



Sketch D: Wiring circuit, using the isolated rail method.

IT is no exaggeration to claim that the Spitfire captured public imagination to a greater degree than any other aircraft has, or ever will. In the cloudless days of September, 23 years ago, the Spitfire was a symbol of British defiance and, because of its vital contribution to history, the Spitfire must surely form the subject of a group of models in any worthwhile collection. As a model topic, the Spitfire offers a more diverse series than any other type of aircraft. Indeed, it is likely that there is no complete record of the multitude of Spitfire variants.

Three good model kits of Spitfires exist, the Airfix Mk IX and the Revell and Frog Mk IIs. It is possible to build from these a wide range of Spitfire variants. Stemming from the Mk II can come the Mk I, III, various reconnaissance aircraft, the Mk V in its many forms and the high-flying Mk VI. To convert the Airfix IX into one of these earlier types would obviously be wasted effort—likewise conversion of the IIs into the Mk VII and later versions, nearly all of which can be easily built from the Airfix Mk IX.

Before making suggestions for simple and straightforward conversions, we will consider the basic ingredients which distinguished the Merlin Spitfires from the Mk VII onwards. Prior to the Mk XII, Spitfires were powered by various marks

of Rolls-Royce Merlin engine. Very slight modifications were in evidence on the cowlings of the different engines, such as a variety of intakes and bumps, and variations in the styling of the exhaust stacks. The PR Mk XIs had deeper noses to accommodate an enlarged oil-tank.

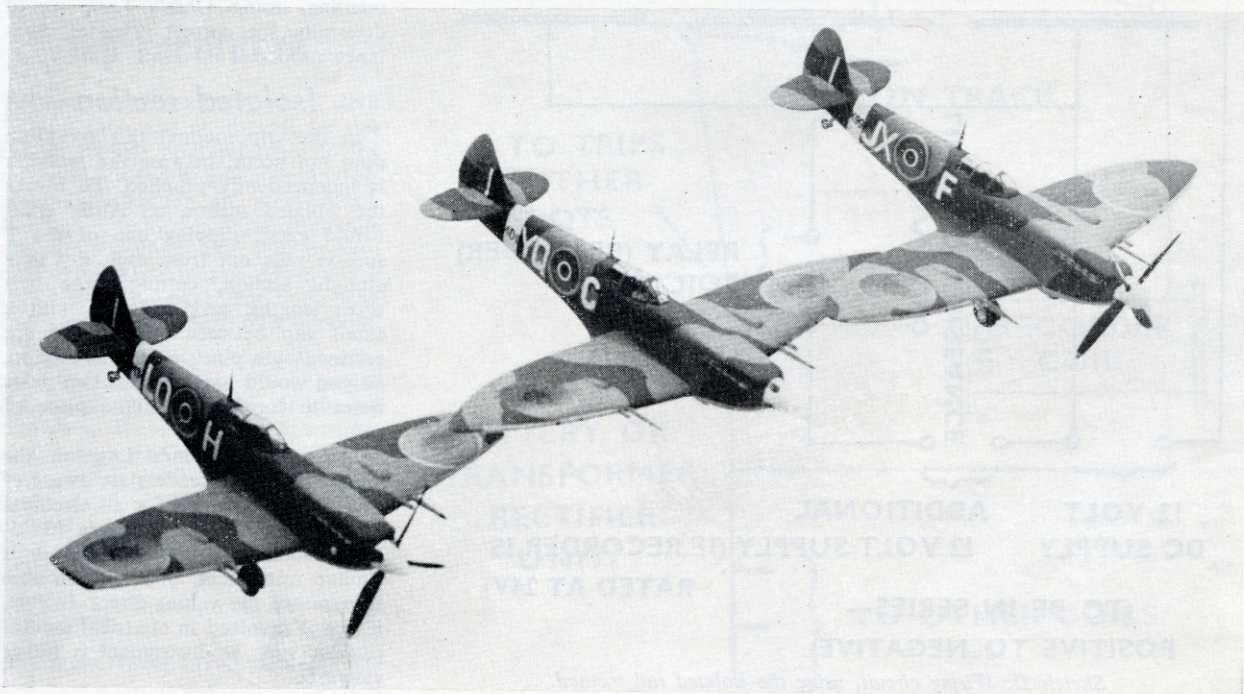
Five distinctive types of wing appeared on these Spitfires. First there was the 'B' Wing of standard plan form, carrying two 20 mm cannon and four .303 in Browning machine

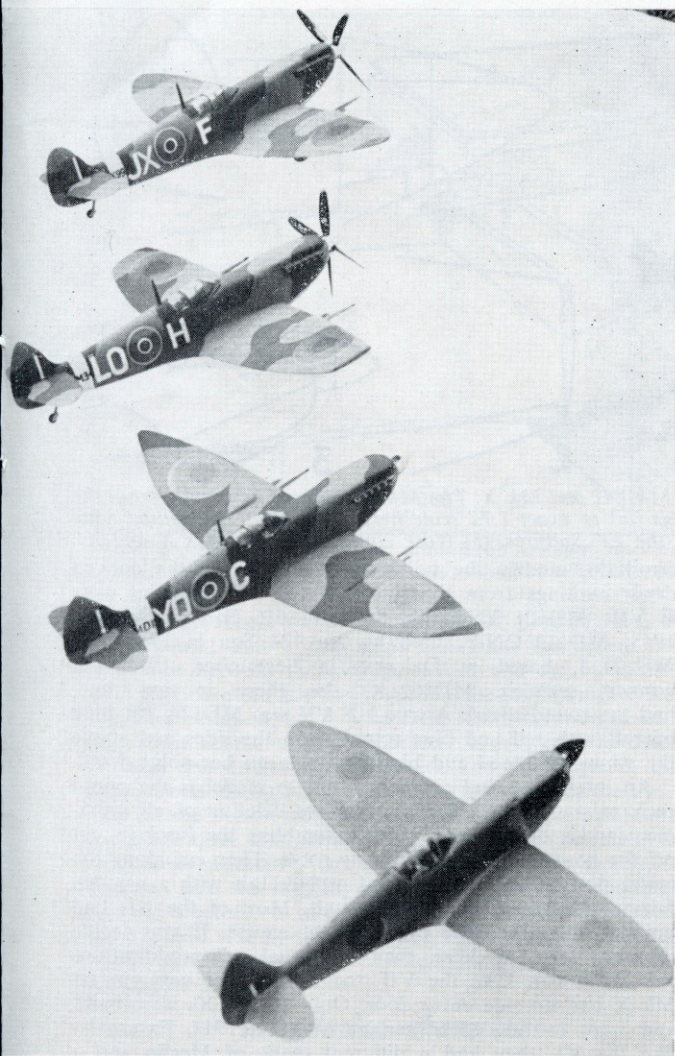
guns. Then came the 'C' Wing, able to accommodate four 20 mm cannon, or the 'B' armament. A later wing, the 'E', carried two 20 mm cannon and two .50 in guns alongside. The Spitfire III, of which only prototypes were built, was the first version to have shorn or clipped wings, but later in the war these were to be featured by many Mk Vs, VIIIs, XIIIs and XVIIs. On versions up to and including the XVIII, it was possible to remove the wing tips, fit wooden fairings, and in all reduce the span to 32 feet 2 inches, mainly to improve low altitude handling. It was also possible to increase wing area to assist high altitude handling by the addition of pointed wing tips, and lengthen the span to 40 feet 2 inches. This modification was applied to Mk VII, VIII and X aircraft. Clipping or extending of wing tips did not necessarily

PROFILE



Simple Spitfire conversions





Above: Four Spitfires from the Airfix kit. At the top, F IXc MK997 of No 1 Sqn, as recorded in April, 1944; second an LF XVI SM343:LO-H of 602 Sqn, as seen in November, 1944. She has the 'E' Wing. Thirdly, MD101: YQ-C, a Mk VII of 616 Sqn. At the bottom of the picture is MD196, a Mk X as seen early in 1945. Later she had a red spinner. Left: Three Spitfire fighters, all simple modifications of the Airfix Mk IXc.

indicate the true role of the aircraft as HF (high altitude fighter) or LF (low altitude fighter), this depended upon the engine variant.

Another variable feature was the fin and rudder shape. Two forms were applicable to the versions of the Spitfire here under review. First there was the usual shape, as fitted to the early aircraft. The longer nose of the Merlin 61-powered Mk VII, VIII, IX, X, XI and the development of the Griffon powered Mk XII called for more fin and rudder area, which led to a wide chord type, colloquially referred to as a 'pointed tail'. This second form was often associated with the HF Spitfires, but this was little more than coincidental for, as it offered control improvements, it was introduced on late production IXs for the LF and medium

altitude roles, etc. It was indeed a standard feature on VIIIs, many Mk VIIIs and almost all XVIIs. Early Mk XIIs had the older type, later ones the revised form—which was also featured on all the Mk Xs and XIIIs.

Points of detail require special attention on Spitfire models. Tail-wheels were usually retractable on the Mk VII, VIII, XI and XII. Yet, even here, care is needed. For example, early Mk XIIIs converted on the line from Mk IXs, had fixed tailwheels, featured almost entirely by all the Mk IXs and XVIIs.

In the foregoing, Spitfires with teardrop or rear view cockpit canopies have been omitted, since only marks very easily produced from the Airfix kit are here considered, leaving the more complicated to be the subject matter for another Profile. Under review, here, are Mk VII to XI.

In July, 1942, the Spitfire IX entered service at Hornchurch with No 64 Sqn. The first aircraft were Mk IXb, but the IXc (the most common variant) is modelled by Airfix. Reversal of the cannon and machine gun stub will suffice to produce an F IXe or Mk XVIe, while if one cannon stub is removed the result will be a Mk IXb. In the case of the earlier types, machine gun ports will need to be cut in the wing leading edge. Cut away the fin and rudder from above the top line of the fuselage, and replace this with a wooden or plastic pointed tail, to produce a later form of the Mk IXc.

Little-known Mk IXF

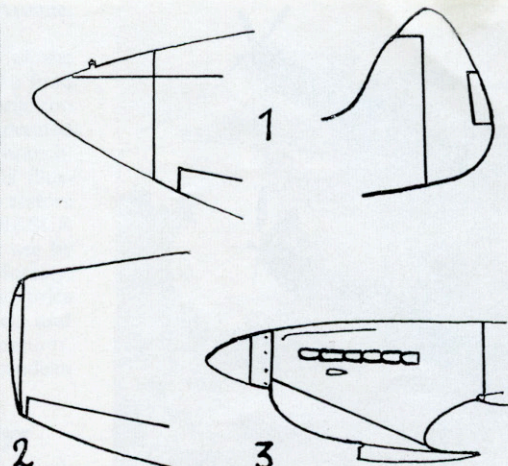
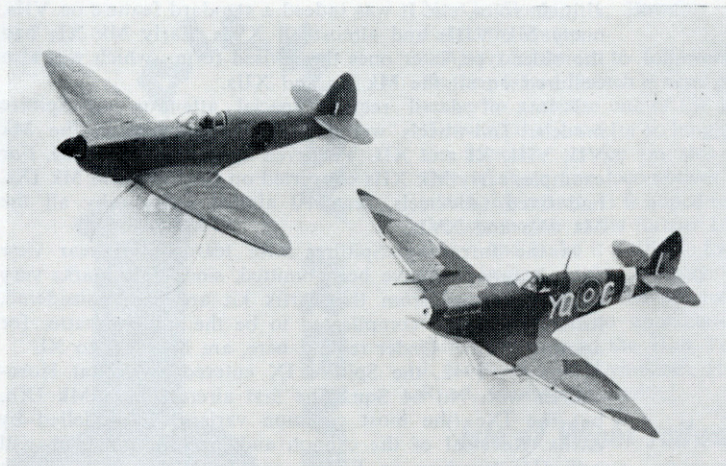
Some of the early and late IXs were modified to carry one or two 250 lb bombs and were known on the squadrons as Mk IXf, a seemingly little-known fact. Both 124 and 303 Sqn used IXfs for long-range escort and strike purposes. Mk IXs with clipped wing tips, and XVIIs are, of course, easy model subjects. The XVI was a Mk IX with a Packard Merlin. It was introduced to the production lines in September, 1944, and entered squadron service with No 602 Sqn at Matlask in November, 1944. A few XVIIs had standard wing tips and many had rear view canopies, so a check needs to be made before modelling one of these.

The following notes on Mk IX/XVI markings, recorded during the war, may be of use for authentic finishes. Unless otherwise stated, in every case the Sky squadron code letters were placed ahead of the fuselage roundels on the port side and aft on the starboard, which was usual on Spitfires. The finish was dark green and dark sea grey, with medium sea grey undersurfaces and standard style roundels. Spinners were usually sky, serial black.

EN558 was a Mk IXb, coded FY:E, and used during May, 1943, by 611 Sqn at Biggin Hill. MJ305 was a typical Mk IXc, coded FF:Z, and used by No 132 Sqn at Bradwell Bay. MK694:RY-E was another IXc of the Czech Squadron No 313, and used by them in March, 1944, while MH876:JJ-D of 274 Sqn was adorned with a full array of AEAf black and white stripes for D-Day operations, but she served as part of ADGB during the V-1 offensive. PT941 was a Mk IXe, with a pointed fin and coded BN-T.

A fighter-bomber IXc was MJ452, coded VZ:L, and used in 1945 by No 412 Sqn at Heesch. She bore no AEAf markings, unlike IXe PV191, with a pointed fin and highly original markings. In Norwegian hands at Grimbergen in 1945 she had normal camouflage, with AEAf stripes under her fuselage only—as was customary in the closing months of 1944—but bore red-white-blue Norwegian rudder stripes, and had these colours in narrow bands across her wings in

Continued on next page



Above, left: Simple to produce, but interesting as models—a Mk VII and Mk X. The Mk XI differed externally from the latter only in the array of intakes on the cowlings. The drawings (all to exact 1:72 scale here) show (1) The pointed wing tips and tail unit of the Mk VII. (2) Clipped wing tips for the LF Spitfires. (3) Nose contour for the Mk X and XI.

PROFILE—Continued

place of wing roundels. Sky bands were retained, and aft of fuselage roundels she carried her owner's initials, RAB.

A clipped LF IXc was PT948, coded SK:Y. She had a pointed fin and was in use in 1946 with 164 Sqn, which also used IXc PT958:SK-R, which had a pointed fin and normal wing tips, yet was still an LF IX. A clipped wing LF IXc with D-Day stripes was MK794:US-H, of 56 Sqn, with the old style fin. RK917 was a IXe with rounded wing tips, pointed fin, grey spinner and shorn of sky bands. She had 'DB' ahead of her roundels outlined in black, and was flown in 1945 by Group Captain Douglas Bader. Like the two quoted examples from 164 Sqn, she had under wing serials. An unusual model would be MH874, a IXc fitted with a contra-prop; she had usual style camouflage.

One of the first batch of LF XVIes to enter service was SM343:LO-H, of No 602 Sqn, in use in November, 1944, with under belly stripes. RW350, coded YT:Q, was used after the war by No 65 Sqn.

Resembling the Mk IX in appearance, the Mk VIII existed in similar forms. All VIIIs were tropicalised, and therefore were mainly used in the Middle East, Italy and Far East. They entered service in 1943. Some featured pointed wing tips, yet retained the old shape of rudder. But pointed tails were a feature of most VIIIs. Reduced span ailerons were fitted, as on the Mk VII, to a 'C' or Universal Wing. The Mk VIII may be considered as a low altitude version of the Mk VII. Examples of the VIII were JF463, with sky undersurfaces and black spinner, which had pointed wing tips and the old shape of tail; JG534, with pointed tail and old style wing tips—she had white codes AF:Z and marking appertaining to fighters used in the Far East in 1944; and JF462, with clipped wings and pointed tail. She was an LF VIII with the finish of home-based fighters and red codes ZX:N outlined in white.

The Mk VII was a high altitude fighter which, like the IX, had a Merlin 61 engine or a derivative. It had a 'C' Wing with long pointed tips. Only 16 of the 140 built were true HF VIIIs, the remainder (externally similar) were F VIIIs. Many—the later—VIIIs had pointed tails. Since the VII had a pressure cabin, the pilot's side entry flap door was not fitted. To produce a Mk VII model, cut off the wing tips and replace them with pointed wooden or plastic tips.

Similarly, modify the tail if required. Delete the cockpit door markings from the side. Pointed tail examples were F VIIIs MD101:YQ-C, in use with 616 Sqn in October, 1943; MD112:ON-F, used by No 124 Sqn in 1943; and MD177:J, based at Dalcross in September, 1945, for gunnery training. MD162:R, also there at that time, had the rounded tail. A true HF VII was MD124, PR blue overall with red and blue roundels on the sides and above the wings, with red and blue fin stripe on her pointed tail.

An interesting and simple Spitfire to model is the photo reconnaissance Mk XI. This requires deletion of all armament and a deeper nose. After assembling the fuselage, cut off the nose forward of the wing roots. Then cut along the lower portion of the nose, and replace this with a wooden fairing. Replace the completed unit. Most of the XIs had pointed tails—the later examples, of course. If you decide to model one of these, then the usual tail modifications are called for. Like the VII, the XI and the very similar Mk X had no side entry door. Only 16 Mk Xs were built, and were introduced to service in May, 1944. Externally like the XI, they had a different mark of Merlin and a pressure cabin. All the Xs had pointed tails and one at least, experimentally, had pointed wing tips.

Finish for PR Xs and XIs

The PR Spitfire Xs and XIs, home based or used on the Continent, were PR blue overall and had red and blue roundels. Usually the fin stripe was red-white-blue, the stripes being of usual unequal width. Serial numbers were black in the mid-war years, but changed to white or grey in 1944. Individual aircraft letters were curiously applied, six inches high, below the four inch high serial, as on PL908:L of 542 Sqn. An early XI was EN343:E, with the rounded tail and red-white-blue fin stripe. PL775 was one which carried a full array of AEAFF stripes, and had a pointed tail. This machine, with an off-white serial and 'A' beneath it, had narrow white fin stripe and a black spinner usual on PR Spitfires. Almost invisible was the pale blue-grey serial on MD194, a Mk X which, unlike the XI, had a whip aerial only. This particular aircraft was flying at the end of the war with a white ring added to the upper surface roundels. MD213, similarly adorned, served with 542 Sqn in 1944.

M. F. J. Bowyer

Airfix Magazine

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PT/57 Straight 'A' 3½" long ... 2/9

PT/58 Straight 'B' 3½" long ... 2/11

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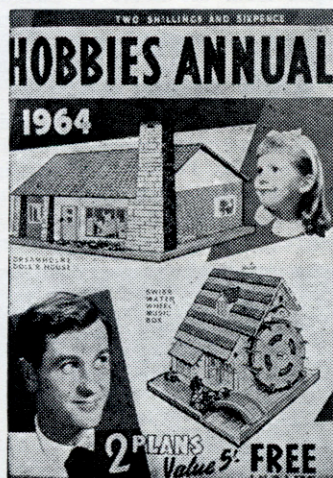
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The *METHANE PRINCESS* safely in the water after her launch at Barrow by Vickers - Armstrongs (Shipbuilders), Limited. She is the world's first purpose-built liquid methane carrier.

Devizes, the model-ship builders, and carries 30 passengers at a time on cruises round the islands on the 11-acre lake at Lord Gretton's home, Stapleford Park, Melton Mowbray, Leicestershire.

The Shaw Savill Line wholeheartedly co-operated with the builders so that as faithful a reproduction as possible of their ocean-going liner could be achieved. Vickers' Naval Yard at Newcastle-upon-Tyne (where the *Northern Star* was built) also helped by working out the factors for the stability of the model, as she draws only one foot of water. The model is 45 ft long and has a displacement of between two and three tons. A 10 hp Ford engine gives a speed of three to four knots. The model has been painted in the same colours as the *Northern Star*.

Stapleford Park is surely going to be a great attraction for modellers, as, apart from the fact that trips in the model liner cost only 2s for adults and 1s for children, there is the further fascination of Lord Gretton's internationally-famous 10½-inch gauge steam railway, which takes passengers from the house to Lakeside Station, close to the specially-built landing stage on the lake.

Liquid methane carrier

Back in the world of the big ships there have been some interesting goings-on, too. Perhaps the most important was the launch of the *Methane Princess* at the Barrow yard of Vickers - Armstrongs (Shipbuilders),

SHIPPING

by A. J. Day

NOTES

JUST about the most interesting model ship ever built made an appearance at one of England's stately homes a few weeks ago. 'Model' is probably the wrong word, for this replica of Shaw Savill's 22,000-ton gross *Northern Star* is the largest miniature passenger-carrying liner in the world. She undertook her maiden voyage on the second anniversary, to the day, of the launching by the Queen Mother of her 'big sister'. She was commissioned by Lord Gretton from Curwen and Newbury of

The latest addition to the fleet of Manchester Liners, Limited, the cargo motorship *MANCHESTER COMMERCE*. She is the first newly-built British dry cargo ship to be fitted with closed-circuit television to assist in navigation.



Limited, for this ship is to pioneer a new international trade—carrying methane from the Sahara to Britain. If the project is successful, new markets will open up for the world's huge resources of natural gas.

Research has been going on for more than ten years into the transportation of liquid methane. In 1957, a small dry-cargo ship was converted into an experimental methane carrier, the *Methane Pioneer*, to prove designs of tanks and the insulation system, for very low temperatures are involved. The experiment was an unqualified success. Now the world's first commercial methane carrier has been launched and a sister-ship is building at Belfast.

The *Methane Princess* is owned by Conch Methane Tankers, Limited, is building for long-term charter to British Methane, Limited, and will be operated by Shell Tankers, Limited, under the British flag. With the gas reduced in liquid form to one-six hundredth part of its normal volume, at a new liquefaction plant on the Algerian coast, the *Methane Princess* and her sister-ship will carry enough in a year to meet one-tenth of Britain's total gas requirements. With a length of 618 ft, a breadth of 81 ft 6 in, a depth of 58 ft 6 in and a draught of 26 ft, the *Methane Princess* has been designed with all machinery and accommodation aft. She is of double-hull construction over the whole length of the cargo space, which is divided into three insulated holds separated by cofferdams. Each cargo hold will contain three aluminium cargo tanks. The ship's main propulsion machinery, which is designed to provide a service speed of 17½ knots, will be a conventional reversible steam turbine of the latest Pametrada design.

TV aids navigation

One of the intriguing features of Manchester Liners' latest vessel, the *Manchester Commerce*, which is the largest ship ever owned in the port of Manchester, is the use of close-circuit television to assist in navigating the Manchester Ship Canal and the St Lawrence Seaway. As the bridge is located aft and the view forward is obstructed by heavy-lift derricks and samson posts, the owners decided that closed circuit television would help overcome navigation problems.

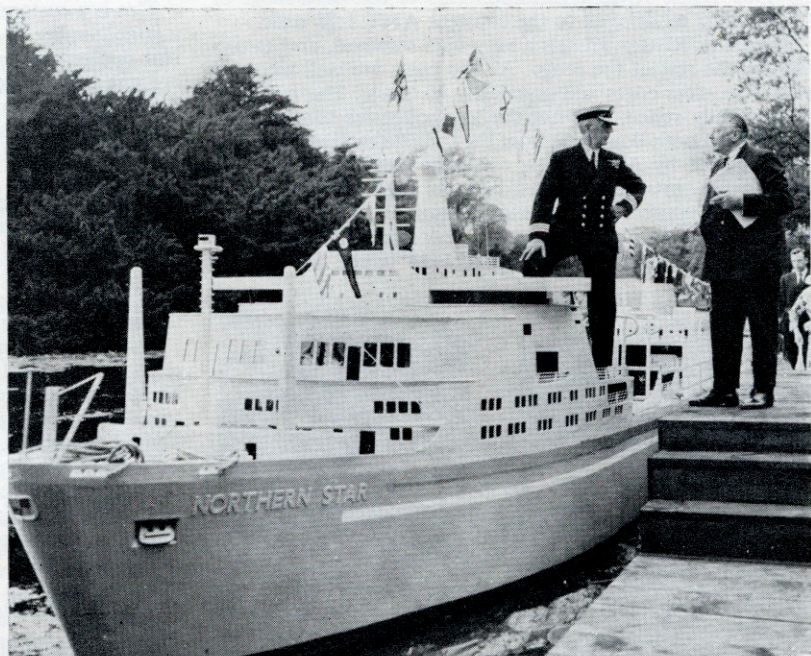
When the ship moved along the Ship Canal for the first time, the pilot found the television very useful and a great help to the helmsman. It en-

abled them to see the actual position of the head tug when, from the bridge, she was under the bows and out of sight. The aspect of the camera is such that the stemhead of the vessel appears in the picture and provides a point of reference from which the observer can gauge distance and bearing of jetties, lock entrances, tugs, buoys, or small craft which might otherwise be invisible from the bridge.

The principal dimensions of the *Manchester Commerce* are: length oa 502 ft 1½ in; length bp, 470 ft; moulded breadth 62 ft; depth moulded to upper deck 37 ft, depth moulded to second deck 26 ft 6 in. She is of 11,829 tons dw and is designed for

is 372 ft long, has a beam of 41 ft, and is armed with two fully-automatic 4.5 in guns, two 40 mm anti-aircraft guns and a triple-barrelled anti-submarine mortar. She will also carry a Westland Wasp helicopter. The previous ship of this name, a light cruiser, distinguished herself under Admiral of the Fleet Sir Philip Vian's command in numerous actions in the Mediterranean and the North Sea.

After a refit lasting just over a year, the aircraft carrier HMS *Victorious* commissioned for service at Portsmouth dockyard and, after a short work-up, was due to leave for service in the Far East. During the refit, improvements were made to the ship's



The largest miniature passenger-carrying liner in the world—a scale model of the *NORTHERN STAR* which takes visitors to Lord Gretton's home at Melton Mowbray for cruises on the 11-acre lake. Lord Gretton is seen giving instructions to the master, Mr H. A. Marshall.

a service speed of 17 knots. The vessel is powered by a six-cylinder Clark/Sulzer two-stroke oil engine, type 6RD76, fitted with two Brown-Boveri turbo-chargers. She was built by Smith's Dock Co, Limited, Middlesbrough, for the St Lawrence Seaway trade of Manchester Liners, Limited.

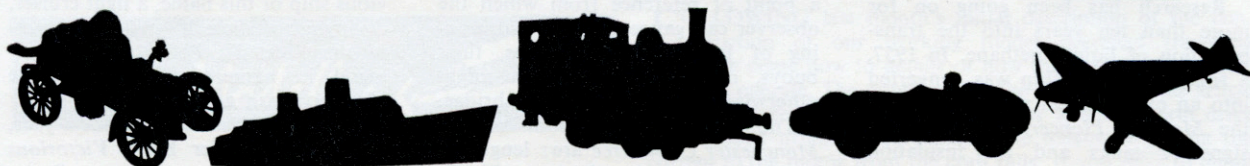
Changes in the Fleet

Another famous ship name from the Second World War was revived when the seventh Leander-class frigate was put into the water recently. The frigate is HMS *Euryalus* (2,000 tons), which

communications system and to the living accommodation, where full air-conditioning has been installed. Alterations were also made to enable the heavier Buccaneer aircraft to be operated; these, together with Sea Vixen fighters, Wessex anti-submarine helicopters and the AEW type Gannet will form her aircraft complement.

Four vessels have been reported 'paid off' by the Royal Navy. These are the last of the famous World War II Hunt-class 'fast escort vessels', HMS *Brocklesby*, and three T-class submarines: HMS's *Tapir*, *Trenchant* and *Tudor*.

New kits and models



'63 CUSTOMISING RANGE

QUITE the most outstanding of the four new car kits reviewed this month is the AMT 3 in 1 customising kit for the 1963 Buick Riviera Hardtop. This is one of a range of 12 new 1963 models, all to the constant AMT 1:25 scale.

The Buick Riviera kit sets a very high standard, and speaks well for the rest of the range. All the parts are well moulded with crisp, clear edges and practically no 'flash'. The car itself is beautifully styled, and not the least offensive to European eyes. The smooth-flowing lines of the full-size car are extremely well captured by AMT in the one-piece body moulding.

The main parts are moulded in white plastic and there are a generous number of 'chrome' trimmings and accessories. There are also clear plastic front and rear screens and, a feature of AMT kits, clear red plastic tail light lenses. This sort of

finishing touch adds so much to a model. The wheels are shod with four soft vinyl tyres, on to which can be added stick-on white walls. The chrome wheel discs, incorporating knock-on hub caps, are masterpieces of precision moulding.

This is a customising kit and, as one would expect, there are a large number of extras. Alternative front grills and front and rear bumpers, air scoops, bucket seats and Weber carburettors are just a few typical items that give scope to the making of a highly individual model.

'Gimmick' features include a first aid kit, flashlight, rally clip board and Monte Carlo Rally plaque. There are also a pair of skis and ski poles for mounting on a special ski roof rack.

Construction features that are particularly noteworthy are the metal axles, ensuring perfect rolling of the road wheels, screw assembly of the bodywork to the chassis, and the new type sprung metal bonnet hinge. This really clips the bonnet shut and yet, when required, holds it open to afford a full inspection of the highly detailed engine.

The other 11 models in this range of 1963 cars include eight kits at 17s 11d each, namely the Corvette Convertible, Thunderbird Convertible, Ford Galaxie Convertible, Chevrolet Impala Super Sports Convertible, Imperial Convertible, Pontiac Bonneville Convertible, Tempest Convertible and Buick 225 Electra Convertible. The remaining three kits cost 24s 6d each, and sound very exciting. They are the Ford F-100 pick-up truck with streamlined go-kart, Chevrolet II station wagon with trailer, and Chevrolet Fleetside pick-up truck with Triumph motorcycle. They are all available from BMW Models, of Wimbledon, from whom our review sample was obtained. The price of the Buick Riviera is 17s 11d. N.S.

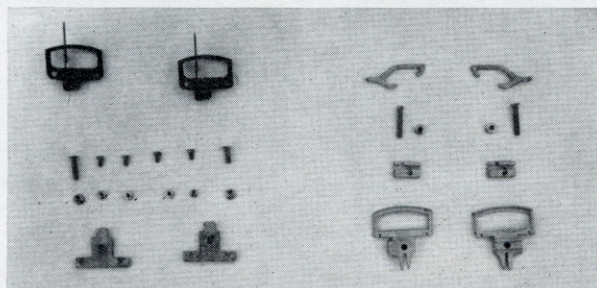
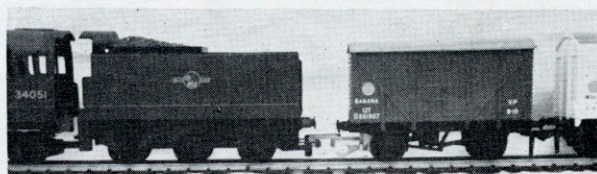
1948 LINCOLN CONTINENTAL

THE 1948 Lincoln Continental is one of a range of three car kits by Pyro that are now available again from BMW models, of Wimbledon. The other two are a 1935 Auburn Speedster and a 1937 Ford Convertible. They are all priced at 11s 9d each. No scale is quoted on the box lid, or in the instructions, but the finished model Lincoln measures eight inches long. All the parts are cast in dark blue plastic, but there are no 'chrome' parts or rubber tyres, which is a disappointment in such a large model. The plastic wheels have a slight representation of a tyre tread.

Construction of the Lincoln is unusual in that the body is in separate parts, not a one-piece moulding as in most plastic kits. There was a fair amount of 'flash' on our model, and considerable cleaning up was required to ensure a good fit. The instructions are accurate, but the illustrations small and not too easy to follow. N.S.

1:32 SCALE FORDS

ALTHOUGH to a much smaller scale than the '48 Lincoln, the Pyro 1:32 scale Ford '49 Tudor and '36 Roadster models are much better finished, and finer detailed. There are four kits in



Top: A Tri-ang engine coupled to Hornby-Dublo wagons, illustrating the usefulness of the Eames adaptor and coupling. Centre: Contents of the two Eames sets—the adaptor (left) and the coupling. Bottom: AMT 1963 Buick Riviera Hardtop, from BMW Models.

the range, all at 6s 11d each. The two kits submitted for review once again have no 'chrome' parts or rubber tyres, but there is clear glazing for the front and rear screens, quarter lights and headlamps. Full chassis and interior details are included but, understandably in the small scale, there is no opening bonnet, and consequently no engine detail. The wheels and tyres, moulded in one piece, contain a fair amount of detail and the tyre treads are clearly moulded. The long thin plastic axles are, however, rather delicate and require care when force-fitting the wheels. Construction is simple and easy to follow from the brief but adequate instructions.

The other two models in the range are the 1932 Ford 'B' Roadster and the 1940 Ford Coupé. All the models can, with a little ingenuity, be adapted to fit the VIP slot racing chassis. All are available from BMW Models, of Wimbledon, who supplied our samples. N.S.

TT SCALE FIGURES

WE hear from BMW Models that they can also supply the new AMT 1:25 scale 3 in 1 kit of the 1957 Ford two-door hardtop. This model features steerable wheels and opening doors (AMT must have read last month's comments!). They also have supplies of the 1952 Chevrolet two-door hardtop. The price of these two kits is 24s 6d each.

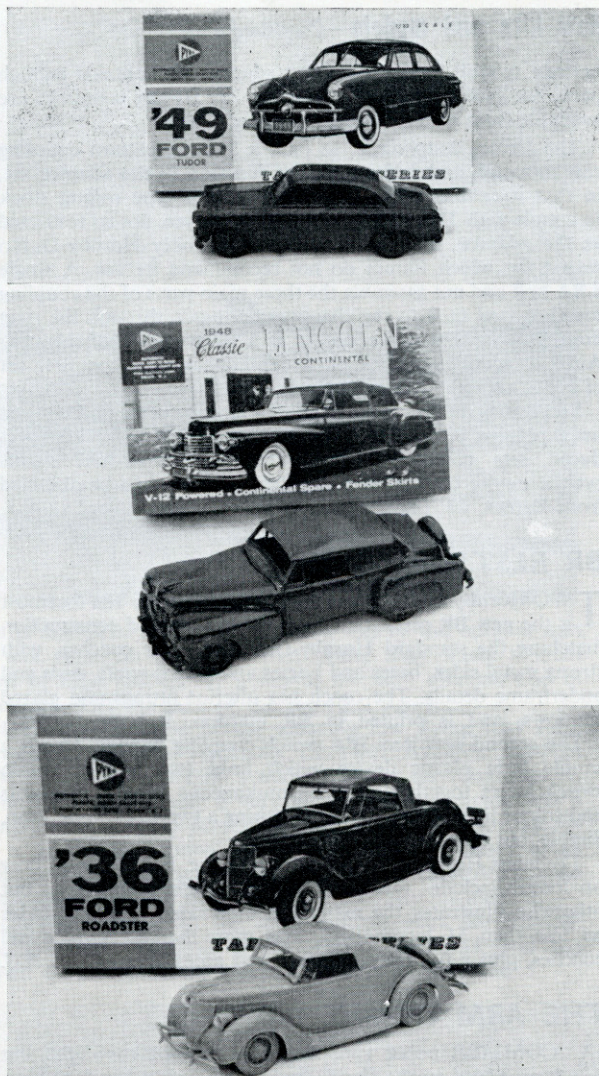
Also available from this firm are a new range of TT scale Merton figures. There are five boxes available as follows: Box 859 men passengers sitting, Box 891 woodsmen, Box 889 blacksmith shop and Boxes 865 and 867 two sets of tourists sitting. Each box costs 4s 10d. N.S.

COUPLING CONVERSIONS

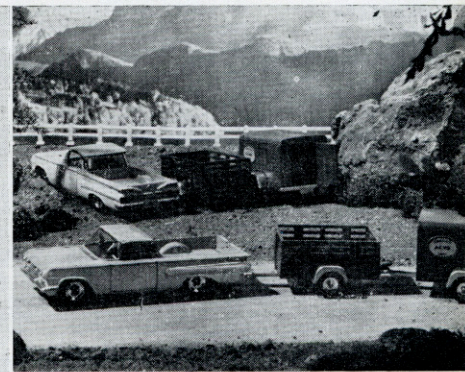
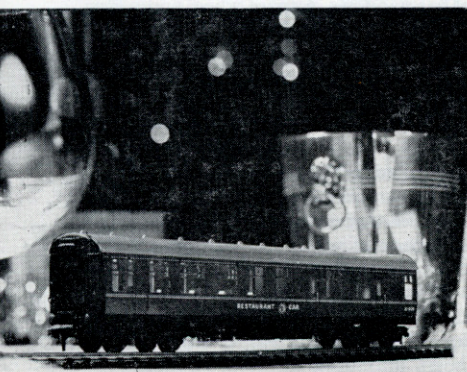
AMES of Reading have produced two sets of well-designed parts of interest to OO gauge railway modellers wishing to combine Tri-ang with other makes of rolling stock. The first set is for an adaptor for fitting Tri-ang couplings to most types of Hornby-Dublo rolling stock. The set is not recommended for the eight ton cattle, ICI salt, Lowmac, bulk grain or Presflo wagons, but all other Hornby-Dublo coaches, wagons and locomotive tenders can be easily converted.

The base of the adaptor is a metal casting, accurately drilled to fix the Tri-ang coupling by means of two 10 BA bolts and nuts supplied. The 10 BA nuts tuck away out of sight into recesses in the metal casting, which hold them firmly in place. Fitting the adaptor to the Hornby-Dublo chassis or bogie necessitates the removal of the rivet holding the Hornby-Dublo coupling. The adaptor is held in place by an 8 BA bolt, fed through the rivet hole, and a nut which fits in another recess in the adaptor casting. The adaptor is so designed to avoid any movement once it is tightly secured to the Hornby-Dublo vehicle, and it is a thoroughly workmanlike job which should prove

Continued on next page



Above, top to bottom: From BMW Models come these three Pyro kits—'49 Ford Tudor, '48 Lincoln Continental and '36 Ford Roadster. Below, left to right: Hornby-Dublo BR restaurant car (photographed on a dining table); Matchbox breakdown truck and TV service van; and Dinky Toys Chevrolet pick-up truck with trailers.



New kits and models—Continued

entirely trouble-free in use. The adaptor set contains enough parts for one vehicle and costs 1s 2d. Tri-ang couplings are available from all Tri-ang agents price 7d each.

The Eames coupling is, in fact, a Tri-ang pattern coupling cast in metal, and fulfils a similar function to the adaptor set, in that it enables Hornby-Dublo or other type rolling stock to couple with Tri-ang vehicles. It is, however, not so restricted as the adaptor, and the Lowmac is the only Hornby-Dublo wagon for which Eames do not recommend its use. A single 8 BA bolt and nut assemble the three main parts of the coupling together, and fit it to the chassis, once again through the rivet hole. We visualise this coupling as a ready means of adapting Airfix wagons to couple with Tri-ang stock. The complete set of parts, enough for one vehicle, costs 2s 4d.

Sometimes it takes a bit of courage to dismantle and convert an expensive proprietary model, but both of these well-produced sets contain full instructions that should enable even a novice to make a successful job. They can be obtained from Eames, 24 Tudor Road, Station Hill, Reading. *N.S.*

BR RESTAURANT CAR

TWO Hornby-Dublo items are new this month. The foremost is the new BR restaurant car, now in style and construction matching the standard Hornby-Dublo corridor coaches, with strong metal sides, bases and bogies and plastic roofs, ends and underframe details. The coach has interior fittings and glazed windows, and is printed in BR maroon. It costs 16s 9d.

The second new item is a switch coupling handle. This is a simple little plastic device which links two Hornby-Dublo switch levers together to give simultaneous control of points and colour light signals, or for switching a two-rail reverse loop. Simple, but very useful, it costs 9d.

The latest Hornby-Dublo 2-rail catalogue, in full colour, now no longer includes the Type 1 Bo-Bo diesel locomotive, but otherwise illustrates the extremely wide range, which includes no less than 11 locomotives, and more than 60 wagons and coaches, plus a full range of track and accessories. *N.S.*

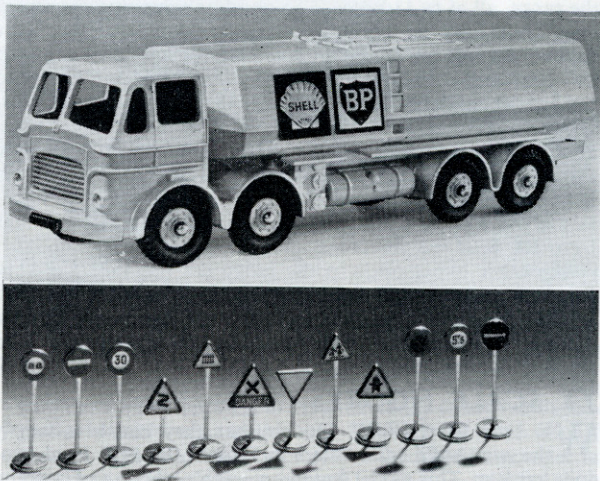
THE ARM OF THE LAW

A COMMER police van, with blue flashing roof-light, has been added to the Corgi Toys range, finished in dark blue, with 'County Police' insignia on each side. A U12 or VOO28 1.5 volt battery—not supplied with the model—powers the roof-light and clips inside the body, which is easily removed from the chassis by one turn of a securing nut. An on/off switch allows the model to be run with or without the flashing light.

Other features of this latest Corgi model include Glidamatic spring suspension, windows, seats and steering wheel, while the



Corgi Toys Commer police van, with flashing roof light.



Dinky Toys Shell-BP tanker, and International road signs.

translucent side windows have bars, just like the real thing. The model is 3½ inches long, and sells for 7s 11d. Spare bulbs (price 8d) are also available from Corgi stockists. *D.R.*

READY FOR TROUBLE

TWO more Matchbox models have just made their debut. They are a Foden heavy breakdown truck, price 4s 6d, and a TV service van. The breakdown truck, to 1:62 scale, has windows, measures nearly five inches long and carries a mass of external detail. Its six wheels have well-modelled 'balloon' tyres, there are several multi-coloured transfers, and the crane has a movable hook. Finish is in green and yellow.

The TV van has a working roller-shutter rear door, three miniature television sets, roof aerial and ladder, red transfers and windows (one in the roof). Finished in cream it measures 2½ inches long, is to OO scale and sells for 1s 9d. *D.R.*

TRIO ON WHEELS

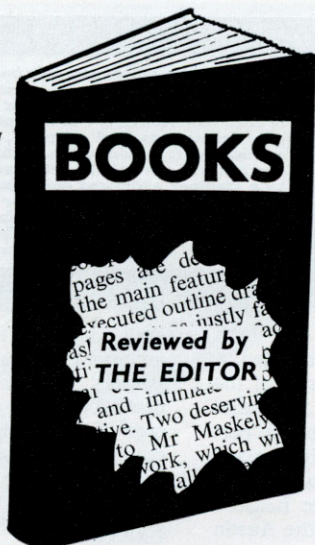
THREE smart new models have recently appeared in the Dinky Toys series. Britain's best-selling car, the Cortina, is now featured in the range. It incorporates a number of interesting features, such as opening doors (with armrests and handles), simulated windscreen wipers, tip-forward front seat backs, Prestomatic steering, four-wheel suspension, steering wheel and windows. Price of this four inch long model, which is finished in light blue, is 5s 3d.

New to the Dinky Supertoys series is a fine model of an eight-wheeler, 4,000 gallon Shell-BP fuel tanker. Based on the Leyland Octopus, the model has windows, a spare wheel and a rear towing hook. The finish is particularly pleasing, in white and yellow, with well-known Shell-BP emblems on the sides and rear. The petrol container itself is well moulded in plastic. The model is 7½ inches long and sells for 11s 6d.

Third new Dinky Toy this month is really a three-in-one model. It features a Chevrolet pick-up truck, with two trailers. The Chevrolet (finished in pastel green and white) has Prestomatic steering, four-wheel suspension, windows, seats and steering wheel. The two two-wheel trailers have red plastic bodies (one open and one closed), one of which has an opening rear door. Price of this attractive combination is 10s 6d, and it would add a pleasant touch to any camping scene.

Finally, in this month's Dinky round-up, comes news of a new set of 12 International road signs (price 4s 6d), many of which type may soon begin appearing on British roads. *D.R.*

NEW BOOKS



Super-detailed reference

UNITED STATES MILITARY AIRCRAFT SINCE 1909, by F. G. Swanborough. Published by Putman Ltd, 42 Great Russell Street, London WC1. Price 84s.

THERE have been quite a number of books recently published on United States military and naval aviation, but without doubt they are surpassed by this latest work by that well-known chronicler F. G. Swanborough. Compiled under the same format as 'Aircraft of the Royal Air Force', by the same publisher, the latest book goes even further in detail than even this standard work of reference. All US Air Corps, Army and Air Force aircraft are listed without exception and so complex is the detail contained that a special chapter is added on how to use the book.

For those of us who are historically minded where aviation is concerned, all serial numbers, where available, are listed, though no attempt has been made to compile complete lists of US units operating each type of aircraft. Nevertheless, much useful information is contained in the descriptive matter on each type, together with all released information on dimensions and performance. Military designations—a subject which always leads some people to despair at our American cousins—are dealt with in great detail and camouflage and colour schemes also have a chapter devoted to them.

The amount of hard work and research that must have gone into this book is fantastic. There has obviously been a great deal of co-operation from the US authorities, but that wizard on American aircraft, Peter M. Bowers, had a hand in the research of a historical nature, and this surely lends even more appeal to an already first-rate publication.

'The tops' on trams

GREAT BRITISH TRAMWAY NETWORKS—4TH EDITION, by Wingate H. Bett and John C. Gillham. Published by the Light Railway Transport League, 245 Cricklewood Broadway, London, NW2. Price 35s.

DESPITE the fact that, with a few untypical exceptions, there are now no tramway systems in this country, the interest in this form of transport has never been greater. Many books on the subject have been published recently,

but none match the usefulness of this Light Railway Transport League publication. The book is based on a series of articles which appeared in 'The Modern Tramway' over 20 years ago, when most of the systems described were then still in operation. Despite the closure of all these systems, such is the popularity of the book that it is now in its fourth edition.

The book is deservedly popular, since it covers so much, so well. Although the title suggests that it is concerned only with networks of tramways made up of inter-connecting systems, the book now goes beyond this original brief term of reference and it is now, in fact, the most comprehensive record of all British tramway and light railways ever constructed or proposed.

There are no less than 200 pages of text, 56 pages of photographic reproductions and 20 maps, nine of which are held loose in a pocket inside the back cover. There is also a very complete index. Seventeen chapters tell the story in convenient geographical groupings, eg Birmingham and the Black Country, The Coastal Chain, The Tramways of Ireland, and the final chapter briefly describes the influence of British Tramway companies overseas. We recommend this book unreservedly as a thoroughly complete and extremely useful and interesting reference volume.

Guide to colour schemes

AIR BP BOOK OF IATA AIRLINES, Published by the British Petroleum Company, Britannic House, Finsbury Circus, London, EC2.

OF particular interest to model makers, whose main interest is the correct colour schemes of present-day airliners, is this new revised edition of 'IATA Airlines' published by Air BP. It contains a side view, in full colour, of a representative aircraft from each of the 91 airline members of IATA and brief details of the companies' fleets in English, German, French and Spanish. An appendix at the rear of the book contains details of passengers, cargo and mail carried by these airlines during 1961.

Nostalgic history

TRAMS OF BYGONE LONDON, Published by Dryhurst Publications, 113 Squires Gate Lane, Blackpool. Price 2s 6d.

THIS is a wonderfully nostalgic 40-page book with well produced reproductions of no less than 71 photographs of tramcars running in London from the early horse drawn days until the final abandonment in 1952.

Over half the photographs are of rare pre-London Transport views and show a bewildering number of types. All the illustrations are fully captioned, resulting in a most informative and interesting publication which is excellent value.

Reprint on buses

LONDON INDEPENDENT BUS ALBUM, published by The Oakwood Press, Tandridge Lane, Lingfield, Surrey. Price 5s.

THE Oakwood Press have reprinted this booklet, which reproduces 44 photographs of vehicles belonging to independent London bus companies ranging over the period 1904-31. The photographs are very interesting, but the austere format of the booklet (which consists of eight single-sided sheets stapled along one edge, with but brief typewritten captions) is disappointing.

Letters to the Editor

Letters to the Editor can only be answered in the magazine. Readers whose letters are published each receive a free Airfix plastic construction kit of their choice. We are always pleased to receive your comments and pictures, which will be considered for publication. Submitted material and pictures can only be returned if accompanied by a stamped addressed envelope, and the Editor cannot accept responsibility for safe keeping of any such contributions, neither does he necessarily agree with comments expressed by correspondents in the letters column.

Tank topics

I WAS very interested to read, in the July issue of AIRFIX MAGAZINE, Mr J. Stilwell's letter concerning the JS3 and Sherman tanks, in which he says that the Sherman 'appears very light in the bone'. I think it is only fair to point out that the later marks of the Sherman mounted heavier firepower, wider tracks and improvements to the design of the armour. Certainly the earlier marks left much to be desired, and the Sherman I and II, which were fitted with aero-engines, were nicknamed 'Ronsons' by the British and 'Tommy Cookers' by the Germans because of the frequency with which they caught fire when hit.

However, many of the British tank units which took part in the Normandy landings were already using the Sherman mounting the British 17 pounder gun (76 mm), which was 58.4 calibres long and fitted with a muzzle brake. Though these tanks were limited in number, and many regiments were only able to equip one out of three squadrons with this tank, they were able to deal very successfully with the larger and heavier German tanks. Three other marks of the Sherman were fitted with a 105 mm gun. Also, this tank was modified for use as anti-aircraft tank, bridge-layer, bulldozer, fascine tank, flame-throwing tank, mine-sweeping tank, recovery tank, troop-carrier and as a multiple rocket launcher. In all there were 22 marks of the Sherman and over 32 modifications for special purposes.

Readers might be interested to know that one of the tricks used to give more protection to the Sherman was to weld old track plates on to the body and turret. Another trick was to rig chicken-wire on the sides and front of the tank, with about a foot between the wire and the body of the tank. This was extremely effective protection against bazookas, as the rocket projectiles would either

bounce off the wire or do little damage if they actually exploded.

Lastly, a plea for one or two of the less glamorous vehicles, but ones which certainly played as big a part in winning victory. I think many people would be very happy to see one or two vehicles like the Bedford Q type three-ton truck, and the Austin K2 ambulance. I feel sure that these vehicles would have as much appeal to younger modellers as to ex-servicemen with nostalgic memories. With the lack of a large number of parts, it might be possible to have two vehicles to a kit or a choice of bodywork, such as troop-carrying or wireless office in the case of the Bedford. Also, what about an armoured car or two, like the British Daimler and the German eight-wheeler, a German or American half-track, an anti-aircraft gun or anti-tank gun?

Congratulations, anyway, to Airfix for the very fine kits they have already produced, and I hope we shall see many more.

S. M. Cuddy, London, SW3.

Panther preferred

I WAS rather disappointed in the letter, written by Mr J. Stilwell, in your July issue, in which he said that he would be happiest in a Stalin JS3. May I say that, in every way, the German Panther was comparable, except in size.

The Panther had a top speed of 30 mph, and weighed 49 tons. It had an ultra-high velocity 75 mm cannon, and used direct sight up to a distance of 1,650 yards. Many say that the Panther didn't compare with the Stalin in armour by quiet a bit. Not so. The Panther had turret armour of 4.3 inches compared with the Stalins' 4.7—a difference of only .4 inches! Also, the Stalin JS3 had a top speed of only 20 mph.

One big drawback on the JS3 was that it had a lack of storage space, owing to its low silhouette. Therefore, the gunners had to make every 122 mm

shell count—or find themselves out of ammunition in a very short time. The Panther was very much more manoeuvrable than the Stalin. Also, the crew of five in the Stalin were very much cramped, because of its beetle-like shape. So may I state that I would be happiest in the Panther. But I agree with Mr Stilwell's statements on the American Sherman and Grant.

I would like to say that I enjoy AIRFIX MAGAZINE very much, and hope to see more Airfix models in the near future here in the US. Most of my better-made models are Airfix. May I also make a plea for an Airfix Ju 88, with the accessories suggested by S. J. Hutchins in your June issue.

Geoff Cocks, Carmel, California.

Defending the Sherman

WITH reference to J. Stilwell's letter in your July issue, I fear that he does the Sherman tank wrong. He is correct in saying that the Sherman mounting the 75 mm weapon was ineffective in a tank-to-tank duel, but he forgets both tactics and increased fire power of various marks of Sherman.

The Tiger I tank was met in Normandy and NW Europe, but no more than two were usually seen together, while Sherman tanks operated in far larger groups. The awkward size and slow turret traverse of the Tigers made them easily outmanoeuvred by the faster, lighter Shermans and, although they could pierce a Sherman at over 1,000 yards, the Sherman could often manoeuvre out of trouble, or close the range to a distance at which they, too, could do damage.

The Sherman received the 76.2 mm gun (17 pounder) in 1944, and this formed the basis of the Sherman VC (Firefly) and M10 self-propelled gun (Achilles). With this gun, the fire-power was equal to that of the Tiger I. In addition the Sherman B was equipped with the 105 mm howitzer.

Mr Stilwell's statements referring to the non-importance of crew comfort in a fighting tank are, I feel, a trifle mis-

informed. Liddell-Hart maintains that only the crew of a 'comfortable' tank can continue to give maximum fighting power over a sustained period. This is amply borne out by various battle reports from those who fought in the desert. Airfix are quite right to claim that the JS3 Stalin was cramped, for it was designed at a time when current Russian tank thinking put the average combat life of a tank at about three weeks, so that survival rather than comfort was the chief design point.

It might interest those who specialise in converting kits to know that the Sherman can be easily turned into a Grant or Lee. Line drawings of these appeared in April 1962 'Model Maker'. J. R. B. Edwards, Farnborough, Hants.

First-hand facts

IT was with great interest that I read Mr Stilwell's letter on tanks in the July AIRFIX MAGAZINE. I feel, as an ex-tank man, that the picture of the M3 and M5 General Stuart light tank was not perhaps quite as bad as it has been painted. After all, we did call them the Honey, they could take on the Pz Kw III with a fair chance of success. The Pz Kw IV could also be taken on by a good commander and they were, when intro-

duced, the best tanks we had in the desert. and Pz Kw IV, together with a kit of an armoured car, say the Humber or Stag-hound, a 30 cwt and three ton lorry, the 6- or 17-pounder anti-tank gun, a Jeep and a general odds and ends kit, containing such things as jerry cans, scrim netting rolls, ammunition boxes and kit and bedding rolls and the like, to be found strung over all vehicles.

As regards existing tank kits, I have been able to make a very nice Pz Kw III from the Assault Gun, a Lee, Grant, Ram, Priest, Achilles and all marks of Sherman, including the VC Firefly, from the basic Sherman kit. The transporter tractor has provided the basis of various workshop vehicles and should Mr Ellis be interested in any of these conversions as a basis of his articles I should be most happy to assist him.

Present projects include the Crocodile Churchill and the 2- or 6-pounder Porte or the Quad Tractor, with perhaps a Sherman flail and a Churchill NA75 for later consideration.

Dan F. Davies, Rochester, Kent.

Painting figures

I MUST agree with Mr Finnie (letters page, June issue) that the Airfix *Endeavour* kit is wonder-

ful value. I was, however, a bit stumped as to the best way to paint the small figures of the crew. Perhaps readers may like to hear how I managed to avoid any trouble.

First, stick the figures to a piece of cardboard, about nine inches by five inches, leaving plenty of space between them. Now, with a very fine brush, the whole crew can be painted at the

same time, without any handling troubles. You can twist and turn the card, and this enables easy access to all parts. Avoid too much paint around their feet, and it is also preferable to use a rough surface card.

When they are dry, you will find no difficulty in removing them and, if necessary, you can tidy up their feet with a nail file. I found this method helped me to make a better job of the smallest figures I've ever attempted.

Kenneth Wright,

Milngavie, Dunbarton.

Worth-while tips

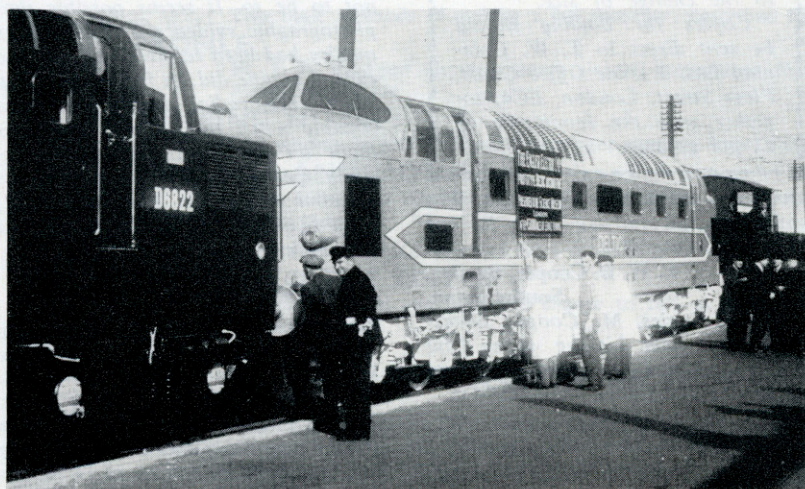
AS a 1:72 scale World War II aircraft addict, may I say how much pleasure I get from your excellent models and very interesting magazine. I would also like, if possible, to pass on a few useful tips which I have discovered over the years as a plastic modeller.

I often find that my model looks very realistic until I stick on the transfers—then the illusion is shattered by the artificial 'varnished' look which the transfer imparts to the model. I have got round this by applying the transfer in the usual way, allowing it to stand for a week, and then painting over the whole with Humbrol matt finish.

When this has dried I simply use the transfer as a pattern and paint over it with matt paint. Having painted on the letters, numbers and roundels, I then finish up by painting round them with the camouflage colours. This also straightens out any little 'slips of the hand' which might have occurred in the painting of the letters. With a little practice the results are really worth the extra time and care involved. I found this was particularly worth-while with the Boulton-Paul Defiant. (Incidentally, the squadron letters on this model should be *red* for a night fighter not white, as supplied.) I think this is one of the best Airfix models—the moulding really is excellent.

I very often add small details, such as pitot heads and whip aerials (Typhoon) to my models. These can easily be made by taking one of the strips to which the moulded parts are attached, and, setting light to it halfway along its length, drawing it out as it melts. One can get lengths of varying thickness from this method, and I have even managed to get thin enough threads to make wires for aerials. These strips are more satis-

Continued on next page



Reader E. N. Bellas, of Newton-Le-Willows, Lancs, sent us this interesting picture, taken outside the Vulcan Foundry, Newton-Le-Willows, of the prototype Deltic about to leave for London, where it was later placed in the Science Museum.

duced, the best tanks we had in the desert.

No tank can compete with well-sited, dug-in anti-tank weapons, as both the Panther and Tiger proved against the 17-pounder in Tunisia, and to expect a light recon tank to do what these two could not is, I feel, a bit much.

I would add to Mr Stilwell's list of wants the Honey, Crusader, Cromwell

ful value. I was, however, a bit stumped as to the best way to paint the small figures of the crew. Perhaps readers may like to hear how I managed to avoid any trouble.

First, stick the figures to a piece of cardboard, about nine inches by five inches, leaving plenty of space between them. Now, with a very fine brush, the whole crew can be painted at the

Letters to the Editor

Continued

factory than thin wire, as they can be fixed to the aerial with polystyrene cement.

I have found that emery boards used for manicuring are very useful for removing any flash on mouldings, and they have rough and fine sandpaper on them.

Reader M. J. Tiley, of Clutton, near Bristol, asks in the June edition of your magazine for a 1:72 scale model of a B-25 Mitchell. He should try the Revell kit of RAF Mitchell VOR number FW 122 of 98 Squadron. This just happens to be a 1:72 scale kit, although this is not stipulated on the box.

I should very much like to hear from any readers interested in viewing my collection of models, and I should also like to meet any modelers in my area—perhaps there is a club of some sort?

David Hall-Green,
25 St Ann's Villas, Holland Park,
London, W11.

Rules about rods

HAVING recently read your review (AIRFIX MAGAZINE, June, 'New kits and models') about the Lindberg 'T' Pickup Rod, I feel compelled to write this letter. It is obvious that the writer of the review is extremely misinformed as to the design and meaning of rods, so I advise him to read a couple of 'hot rod' magazines.

The photo of your model shows a street or show rod. Why then, did you put racing numbers on it? Or, if it is meant to be a dragster, why the headlights, grille, mufflers and street exhaust headers? With reference to the painting, you say 'anything will do—the more outlandish the better', which is utterly ridiculous, since the real thing is perfect in every detail, including the paintwork. On real rods, as many as 30 coats of paint are used to get a perfect finish, which is far from outlandish. Decals are *not* put on the roof, and a rod is not any old car with chrome parts and a different engine.

M. Winkworth, Woodford Bridge, Essex.

Sorry! We didn't set out to be knowledgeable about rods, and deliberately quoted from the instruction sheet and concentrated on reviewing the kit.

All the desirable things Mr Winkworth mentions are possible with this kit, and if he wants to make a dragster, street rod or show rod he can do so accurately. All the parts are there in the kit, and you can please yourself what you use or leave off—the essence of a customising kit. We merely tried to assemble as many parts as possible to show what was included in the kit. Even so, we had plenty of parts left over, and that applies to the decals as well. We just hadn't body space on which to stick them all—hence the racing numbers on the show rod and decals on the roof! We are all now busy reading hot rod magazines!—Ed.

Wrong gauge

THANK you for the review of my book, 'The Calshot RAF Railway,' which appeared in your June issue. Unfortunately, a misleading

BINDING YOUR COPIES

READERS who have their copies of AIRFIX MAGAZINE bound are advised to include the 12 issues of Volume 3 with the June, July and August issues of Volume 4, due to the change of size.

Copies for binding should be sent direct to T. W. Coleman Ltd, 3 Wine Office Court, Fleet Street, London, EC4, together with the remittance of £1 per volume.

error has crept into your text. The gauge of the railway is 2 ft, not 2 ft 9 in as stated.

F. W. B. Cooper, Fawley, Southampton.

Our apologies, Mr Cooper. Somebody must have hit the wrong key! We are grateful for this opportunity of putting the record straight.—Ed.

Quick work!

BESIDES having a varied collection of your excellent aircraft models, I have begun a collection of British liners. These detailed models gave every satisfaction in constructing, and the only fault I found with them was the 'easily toppled' supports. Perhaps it would improve the stability of the model if the stand could be constructed into one complete piece, as displayed by HMS Cossack in your catalogue.

To conclude, I would like to suggest models for future production, particularly some more liners, inclu-

ding the *Queen Mary*, the *France* and the *Oriana*. To add to my collection of aircraft, I would very much welcome the Handley Page Hampden, and the Lockheed Starfighter.

Stuart Andrews,
Sunbury-on-Thames, Middx.

A description of the new Airfix Starfighter kit appears this month on page 4. The other suggestions may take a little longer!—Ed.

Radial or in-line?

I WAS very pleased that you included the He 111Z conversion in your July issue 'Profile,' but was disappointed that the central engine was described as similar to the other four engines. I had understood that the central engine was originally a radial. Was this the case?

Peter Tucker, Bellshill, Lanarkshire.

Mike Bowyer comments: 'Mr Tucker is correct in stating that it was originally believed that the He 111Z had a radial engine in fifth place, but subsequent information proved this not to be so. It was thought at first that the central wing section had double dihedral, but again this was proved not to be so. It seems possible that photographic evidence of rather poor quality had been received, wherein the central engine did, in fact, resemble a power egg radial—this seems most feasible when the aircraft is viewed from an 'awkward' angle. Alternatively, perhaps a trial installation of a radial was made. The He 111Z-1, subject of the Profile, certainly had five in-line engines'.—Ed.

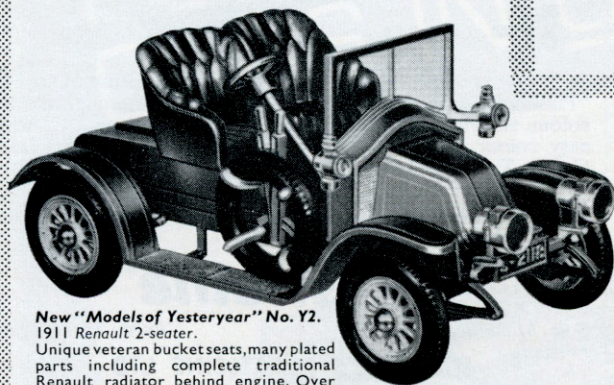
Pen pals

THE following AIRFIX MAGAZINE readers have written to the Editor, requesting pen friends: R. Gray (age 13), of Old Grove Farm, Ryton, Co Durham, would like a French pen pal, interested in modelling and transport. B. Atkins, of 14 Manor Road, Stockton, near Rugby, Warwickshire, is keen to correspond with an aircraft modeller in Japan, with a view to discussing and exchanging aircraft kits. P. Underhill, of 26 Ruskin Avenue, Denton, Manchester, would like an English pen pal, with an interest in plastic model aircraft and model racing cars. Finally, John Noble, of 10 Murray Street, Mosgiel, New Zealand, wants an English pen friend willing to exchange aircraft photographs and information. Interested readers are invited to communicate.

Airfix Magazine

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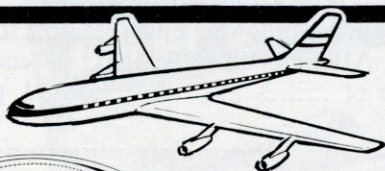


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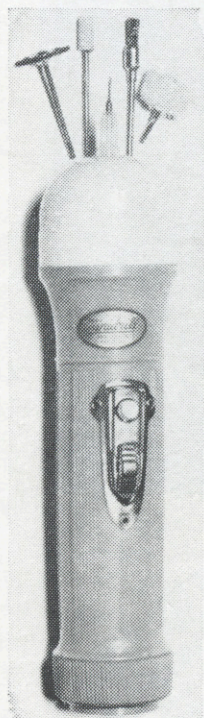
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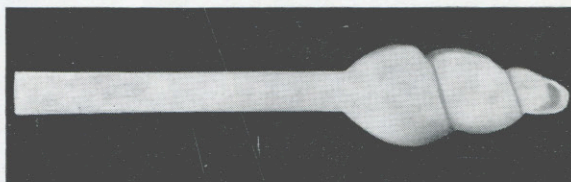
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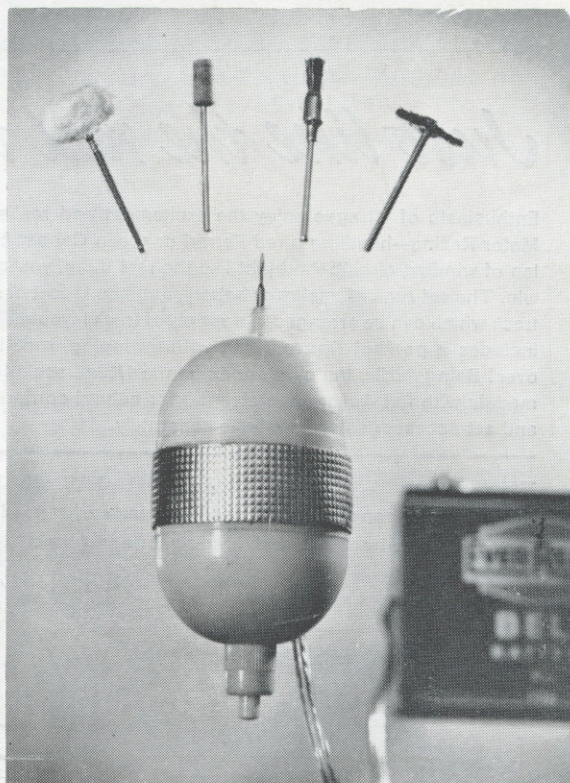
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